

19991005.qrp v01\_n599.qrl.991005

Date: Tue, 5 Oct 1999 19:03:05 EDT

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 1599

QRP-L Digest 1599

Topics covered in this issue include:

- 1) [52213] CB Conversions  
by Skip <longbeard@cybernet1.com>
- 2) [52214] SLV support questions  
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- 3) [52215] Re: I was QRP before I was a ham!  
by "Steve & Anne Ray" <sbralr@worldnet.att.net>
- 4) [52216] Re: Spartan Sprint  
by GElam30092@aol.com
- 5) [52217] CB 10 Meter Conversions  
by charles k brown <n4so@juno.com>
- 6) [52218] FS: SOLD - unbuilt NC-20 kit  
by Frank Alwine <n1gpy@together.net>
- 7) [52219] FS  
by "Perley Urquhart" <n1yuk@nemain.com>
- 8) [52220] handkey order final notes/call  
by "Scott Howell" <n3byy@yahoo.com>
- 9) [52221] SLV antenna  
by "wayne reed" <wlreed@custom.net>
- 10) [52222] IAQRP at West Liberty Hamfest (long)  
by "John Burnley" <burnleyia@home.com>
- 11) [52223] WTB - Norcal Resistor and Capacitor Kits  
by HWRM1SS@aol.com
- 12) [52224] Tuna Tin 2 pi output ckt  
by "KA5T Larry Wise" <lewise@inetport.com>
- 13) [52225] Fireball 1.5W Amp with TT2  
by "George Heron" <n2apb@erols.com>
- 14) [52226] Sawmill  
by Pete Burbank <plburbank@kih.net>
- 15) [52227] Miilliwatting/M  
by Jim Hale <kj5tf@yahoo.com>
- 16) [52228] Found: Unusual source for #24 magnet wire  
by KG8L@aol.com
- 17) [52229] Re: Solder suckers/static  
by Robert McConnell <rmcconne@lightlink.com>
- 18) [52230] ARS Test de K7QO  
by "Chuck Adams, K7QO" <k7qo@hotmail.com>
- 19) [52231] Re: Tuna Tin 2 pi output ckt

by "David D. Meacham" <ddm@datatamers.com>  
20) [52232] Re: solder from holes  
by "Harley L. Miller" <hmiller@sound.net>  
21) [52233] Re: Tuna Tin 2 pi output ckt  
by "KA5T Larry Wise" <lewise@inetport.com>  
22) [52234] Re: Solder sucks  
by Russ Dow <n7dw@garlic.com>  
23) [52235] Spartan Sprint  
by Gary L Surrency <gsurrency@juno.com>  
24) [52236] AR SP  
by "Rod Cerkoney" <rcw@frii.com>  
25) [52237] Spartan Sprint de AL7FS  
by Jim Larsen AL7FS <al7fs@pobox.alaska.net>  
26) [52238] Re: Solder from holes  
by "Randy Jouett" <rules@bellsouth.net>  
27) [52239] new e-mail adress  
by DL2FI@t-online.de (Peter Zenker)  
28) [52240] Re: Tuna Tin 2 pi output ckt  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
29) [52241] Other West Liberty Cudos  
by "John Burnley" <burnleyia@home.com>  
30) [52242] Re: Tuna Tin 2 pi output ckt  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
31) [52243] Re: Tuna Tin 2 pi output ckt  
by Bruce Muscolino <w6toy@erols.com>  
32) [52244] Re: Tuna Tin 2 pi output ckt  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
33) [52245] FS: Ten-Tec Argonaut 509 Chassis Parts  
by DSJKALLEN@aol.com  
34) [52246] HTX 100  
by Bigbob97@aol.com  
35) [52247] Re: Tuna Tin 2 pi output ckt  
by "KA5T Larry Wise" <lewise@inetport.com>  
36) [52248] Re: Query about Asian paddle source  
by "Sly (9M8SL)" <cqsly@tm.net.my>  
37) [52249] ANYBODY AWAKE IN TUCSON??  
by Brad Bradfield <b\_bradfield@yahoo.com>  
38) [52250] Re: Tuna Tin 2 pi output ckt  
by "KA5T Larry Wise" <lewise@inetport.com>  
39) [52251] Static...a few facts to think on.  
by Dave Barrett <DBarrett@creo.com>  
40) [52252] Re: Tuna Tin 2 pi output ckt  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
41) [52253] Recommendations for 10 meter mag mount  
by "John Burnley" <JBurnley@ifmc.org>  
42) [52254] Screeching sounds all over...  
by "Sly (9M8SL)" <cqsly@tm.net.my>  
43) [52255] Re: Fun mWatt Weekend

by "Dick Schneider" <dschneider2@uswest.net>  
44) [52256] Re: Static...a few facts to think on.  
by James Owen <james.owen@nist.gov>  
45) [52257] Re: Static...a few facts to think on.  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
46) [52258] More Stuff FS: Tick3 DIP Chip, OHR WM-2  
by "Jerry McCollom W0MC" <w0mc@hotmail.com>  
47) [52259] Re: Tuna Tin 2 pi output ckt  
by "Tony Fishpool" <g4wif@btinternet.com>  
48) [52260] widespread opening on 10  
by wj5o@juno.com  
49) [52261] Re: Recommendations for 10 meter mag mount  
by "Mike Yetsko" <myetsko@insydesw.com>  
50) [52262] October Spartan Sprint Report from KI6DS  
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
51) [52263] Re: Sawmill  
by "Bill Todd" <zapzap73@hotmail.com>  
52) [52264] Re: More Stuff FS: Tick3 DIP Chip, OHR WM-2  
by "Jerry McCollom W0MC" <w0mc@hotmail.com>  
53) [52265] 12M  
by "Steven Weber" <kd1jv@moose.ncia.net>  
54) [52266] Re: Recommendations for 10 meter mag mount  
by "Steven Weber" <kd1jv@moose.ncia.net>  
55) [52267] Re: Tuna Tin 2 pi output ckt  
by Bruce Muscolino <w6toy@erols.com>  
56) [52268] Re: October Spartan Sprint Report from KI6DS  
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
57) [52269] ARS SP de WB5QYT  
by tom whalen <wb5qyt@eFortress.com>  
58) [52270] RE: Recommendations for 10 meter mag mount  
by "Kevin Muenzler WB5RUE" <wb5rue@stic.net>  
59) [52271] Re: Tuna Tin 2 pi output ckt  
by Glen Leinweber <leinwebe@mcmail.cis.McMaster.CA>  
60) [52272] Re: Recommendations for 10 meter mag mount  
by "Tom Hybiske" <hybiske@generalatronics.com>  
61) [52273] variometers  
by Anthony Felino <anthony@pacinfosb.com>  
62) [52274] Re: Recommendations for 10 meter mag mount  
by "Mike Yetsko" <myetsko@insydesw.com>  
63) [52275] Re: Static...a few facts to think on.  
by James Owen <james.owen@nist.gov>  
64) [52276] Re: Spartan Sprint de AL7FS  
by Ed Loranger <we6w@qsl.net>  
65) [52277] RE: Static...a few facts to think on.  
by Dave Barrett <DBarrett@creo.com>  
66) [52278] Re: Static...a few facts to think on.  
by wd4et@juno.com  
67) [52279] Re: Static...a few facts to think on.

by James Owen <james.owen@nist.gov>  
68) [52280] Thanks to all who responded.  
by "John Burnley" <JBurnley@ifmc.org>  
69) [52281] Monday SP  
by Joel Malman <malman@world.std.com>  
70) [52282] Re: variometers  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
71) [52283] Re: Static...a few facts to think on.  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
72) [52284] Island Keyer Project Summary.  
by Ed Loranger <we6w@qsl.net>  
73) [52285] zMATCH  
by "dor" <elbc@pivot.net>  
74) [52286] zmatch  
by "dor" <elbc@pivot.net>  
75) [52287] Square sheet metal punch source  
by Guy Dragoo <GDRAG@proedge.com>  
76) [52288] AZ ScQRPions Meeting??  
by "Ed Manuel (N5EM)" <n5em@flash.net>  
77) [52289] FS: Ten Tec MD# 305 Level Converter  
by K10J <k10j@ditdit.com>  
78) [52290] psk31  
by "wayne reed" <wlreed@custom.net>  
79) [52291] New Call and E-mail Address  
by "Ken & Linda Burrough" <w8keb@1st.net>  
80) [52292] TT-2 Output network  
by sigcom@juno.com  
81) [52293] Re: Tuna Tin 2 pi output ckt  
by "George T. Baker" <w5yr@swbell.net>  
82) [52294] QRP-PCON Speaker #3  
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
83) [52295] CW items FS  
by "Ken Simpson" <W8EK@fdt.net>  
84) [52296] R1ANF/A  
by Allan G Taylor <k7gt@arrl.net>  
85) [52297] Re: Tuna Tin 2 pi output ckt  
by David Hinerman <dlh1009@ritvax.isc.rit.edu>  
86) [52298] First Homebrew Rig  
by "Kory Hamzeh" <kory@avatar.com>  
87) [52299] cycle 23 is here  
by wj5o@juno.com  
88) [52300] Re: Static...a few facts to think on.  
by Monte Stark <ku7y@dri.edu>  
89) [52301] RE: Static...a few facts to think on.  
by Monte Stark <ku7y@dri.edu>  
90) [52302] First Homebrew Rig  
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
91) [52303] Projects;ESD;QRP-1;Spartan Sprint; Fox; SLX; Norcal Doublet?;

Pacificon;Resonant Speakers

by Ed Loranger <we6w@qsl.net>

92) [52304] Bigger Antenna for the Atomic Clocks?

by Eric Swartz WA6HHQ - Elecraft <erics@elecraft.com>

93) [52305] RE: ESD workstations

by Rich Mulvey <mulveyr@iname.com>

94) [52306] 10 MHz OCXO Trade: Final Chance.

by Ed Loranger <we6w@qsl.net>

95) [52307] 10 meter DX report

by Charles Kadesch <chas@digizen.net>

96) [52308] Pacificon, THE LIST !

by Jerry Parker <jparker@fix.net>

-----  
Date: Mon, 04 Oct 1999 17:10:41 -0600

From: Skip <longbeard@cybernet1.com>

To: qrp-l@Lehigh.edu

Subject: [52213] CB Conversions

Message-ID: <3.0.6.32.19991004171041.0079b780@mail.cybernet1.com>

Mime-Version: 1.0

Content-Type: text/plain; charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

OKay Gang,

I too come from the era ofm CB'ers converting rigs for more coverage, and I even saved acouple with the intent of converting them to 10 meters. It is again time for a good 10 meter cycle, and here I sit with the only 10 meter rig available (again!) QRO!

Where do we get conversion info anymore? I have an old PACE and a Pierce Simpson AM/SSB xcvrs with no where else to go. Ten is the only band left that I don't have something QRP! Help!

Thanks for all the other GREAT stuff I get from the List!!!!!!

Skip, K=D8YWD

=20

QRP-C #146, QRP-L #2003, CQC #616 =20

=20

Skip, K=D8YWD

=20

QRP-C #146, QRP-L #2003, CQC #616 =20

=20

=20  
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Date: Mon, 04 Oct 1999 19:18:20 -0400  
From: Michael Bower <bowerm@ix.netcom.com>  
To: qrp-l <qrp-l@lehigh.edu>  
Subject: [52214] SLV support questions  
Message-ID: <37F935BC.C79E2072@ix.netcom.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The original SLV requires a 20' fiberglass crappie rod. Putting a coil at the bottom and running a lead to the top.

Question:

Is it possible to do the same thing but use a shorter supporting rod? The reason I ask this because 1) I have checked locally and on the Internet and the SD-20 and the Black Widow are virtually impossible to find. I get lots of reasons. I have one on order from both BassPro and Cabela but the EARLIEST they will get them is November sometime. (I know someone found one at a Sports Authority in FL but around here they don't have them. Most places I tried have 13 or 14 footers. The closest I have come is 16 feet.)

And, yes, I know the person who is selling the modified SLV has them IF you also order his coil. I have no objection to that but haven't convinced the XYL of that yet.

TIA

Michael - N4NMR

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Date: Mon, 4 Oct 1999 20:16:18 -0400  
From: "Steve & Anne Ray" <sbralr@worldnet.att.net>  
To: <qrp-l@Lehigh.EDU>, <kj5tf@yahoo.com>  
Subject: [52215] Re: I was QRP before I was a ham!  
Message-ID: <000701bf0ec7\$18ac77a0\$a972fea9@406140227>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I was radiating just learning the code, way back around 1960 my buddy Jim (later to become K1ZXD) and myself K1VKW, rigged up a buzzer system between our houses. They were about 200 feet across and consisted of a couple of keys and code practice buzzers made by Lafayette Radio. Had to run them off

two Number 6 drycells. So we were QRP way back then. Needless to say our code practice came to a sudden halt when his dad and my dad saw what it did to the TVs and radios. No telling how far we were radiating. Two years later we got our tickets by listening to good old W1AW.

72,

Steve Ray K4JPN ex K1VKW HW-101, HW-8, OHR-100A, SWL 30-40 and NC 38S

HeathKit fan

Warner Robins GA EM82fp

-----  
Date: Mon, 4 Oct 1999 20:35:38 EDT  
From: GElam30092@aol.com  
To: k1oj@ditdit.com, qrp-1@lehigh.edu  
Subject: [52216] Re: Spartan Sprint  
Message-ID: <bbca855a.252aa1da@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

In a message dated 10/4/99 3:01:27 PM US Mountain Standard Time,  
k1oj@ditdit.com writes:

<< Howdy All...

I am looking for the rules, i.e.: bands, exchange, etc., for the sprint tonight. I do not see them on the ARS web pages. Anyone know? >>

<http://www.sk3bg.se/contest/arsssgen.htm>

-----  
Date: Mon, 04 Oct 1999 20:48:11 EDT  
From: charles k brown <n4so@juno.com>  
To: qrp-1@lehigh.edu  
Subject: [52217] CB 10 Meter Conversions  
Message-ID: <19991005.004608.6567.3.n4so@juno.com>

Citizen's Band Conversions booklet for  
10 Meters

CBC International  
P O Box 31500

Phoenix, AZ 85032  
602-996-9700

Louis- K6NH owner

www.cbcintl.com

Source: ARRL TIS Find --// info has not been updated.

Ken Brown N4SO  
Mobile, AL/EM50tk  
NorCal-20/5 watts/4 ele. beam

-----  
Get the Internet just the way you want it.  
Free software, free e-mail, and free Internet access for a month!  
Try Juno Web: <http://dl.www.juno.com/dynoget/tagj>.

-----  
Date: Mon, 04 Oct 1999 20:56:55 -0400  
From: Frank Alwine <n1gpy@together.net>  
To: QRP-L <qrp-l@lehigh.edu>  
Subject: [52218] FS: SOLD - unbuilt NC-20 kit  
Message-ID: <37F94CD7.A1830ABC@together.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The NC-20 kit is sold.

72/73, Frank KT1VT

-----  
Date: Mon, 4 Oct 1999 21:25:13 -0400  
From: "Perley Urquhart" <n1yuk@nemain.com>  
To: "QRP-L" <qrp-l@lehigh.edu>  
Subject: [52219] FS  
Message-ID: <029201bf0ed0\$79c1e580\$1b7461ce@urquhart>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="windows-1257"  
Content-Transfer-Encoding: 7bit

Still have the NC20 rig. All built, and working. Very good unit. Email me for particulars. Has mods. \$125.00



-----  
Date: Mon, 4 Oct 1999 21:15:23 -0400  
From: "Scott Howell" <n3bby@yahoo.com>  
To: <cw@qth.net>, <qrp-1@lehigh.edu>, <tentec@contesting.com>  
Subject: [52220] handkey order final notes/call  
Message-ID: <000501bf0ed1\$1a45d0c0\$ad61b683@HQ.NASA.GOV>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

well friends, first let me thank all of you for being so kind while I post messages regarding the handkey project. Just so you all know we've exceeded 750 pieces ordered.

I wanted to make one final call because as of 00:00Z 10/08/99 no further orders will be accepted.

If you had previously placed an order and have not received instructions and amount of your order, please send an msg to n3bby@amsat.org I believe some messages were lost in E-mail never never land.

For those of you who missed the first messages or were on the fence.

you may see a picture of the handkey pin at

<http://www.qsl.net/n9bor/n3bby.htm> and note the black background will be actually dark blue.

There is another site, but as usual I have it on the office machine and not here.

Ok, prices are as follows.

lapel pins come standard with a butterfly or safety pin backing. Each pin is .64 yes .64

tie tac without chain is .86

with chain is .90

tie bar is \$1.19

each item is assumed to be an ounce and this was the best guess for shipping purposes.

thus, factor padded mailer at 2 ounces (note add .65 for mailer) and each item at an ounce.

orders over 10 go priority mail.

Please also add .50 to help defray shipping costs from the vendor to me.

I'll be happy to work up prices for anyone.

Please also note that once the order is placed with the vendor, it will take about 6 weeks to reach me. I'll promptly begin shipping.

please contact me for further details or if you have not received an msg

from me regarding your order.

I have contacted virtually everyone who had placed an order or expressed an interest.

tnx

73 de Scott/n3bby

Laurel MD

Fists #5030 . Qrp-l #1689

for immediate response, send mail to n3bby@amsat.org

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Do You Yahoo!?

Get your free @yahoo.com address at <http://mail.yahoo.com>

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Date: Mon, 4 Oct 1999 19:09:53 -0400

From: "wayne reed" <wlreed@custom.net>

To: "QRP-L" <qrp-l@Lehigh.EDU>

Subject: [52221] SLV antenna

Message-ID: <015601bf0ed0\$a9b71e40\$524961ce@q7c8d5>

MIME-Version: 1.0

Content-Type: text/plain;  
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Gang,

I was rummaging through the fishing gear, actually looking for an old bamboo pole to use to knock down some persimmons, when I discovered we have a 20' collapsable fiberglass fishing pole!! Happy dance.

Wayne, k9ne

wlreed@custom.net

-----  
Date: Mon, 4 Oct 1999 21:32:31 -0500

From: "John Burnley" <burnleyia@home.com>

To: <IaQRP-L@divis17.ped-gen.uiowa.edu>

Cc: <qrp-l@lehigh.edu>

Subject: [52222] IAQRP at West Liberty Hamfest (long)

Message-ID: <001d01bf0ed9\$e0f04cc0\$1b790818@c149522-a.west1.ia.home.com>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

What possible fun can there be on a cold and rainy day? Why spreading the good word about low power operating (QRP) of course!

The Iowa QRP Club had a display table at the West Liberty hamfest on Sunday October 3. The weather was chilly and rainy and I was concerned that the outdoor flea market would be impacted. Well it did rain most of the day and the outdoor flea market was affected, but that sent a lot of people indoors to stop by the IAQRP display to talk about low power operating!

There were lots of QRP goodies that members brought for show-n-tell. Jeff Woods (WOODS) brought his homebrew general coverage communications receiver and a 49'er. Both are very impressive! Jeff is really an excellent builder. The homebrew receiver has a digital VFO with display. We had fun listening to the BBC and later receiving transmissions from a PIXIE 2

that was also on the table. Walt Holling (N9MZP) brought a Mark II NN1G transceiver (built by Walt but autographed by Dave Benson himself), homebrew tuner, and a Pixie 2 mounted in a radar detector case. Larry Stambaugh (WB0RMT) brought his NWxx transceiver (Dan's), tuner, and power supply. All three are in matching cases and was the subject of a fine article Larry wrote for the IAQRP newsletter earlier this year. He also

brought an NC20, super CMOS keyer, NorCal paddles, and a Pixie 2. John (NU0V) brought an MFJ-9017, Emtech ZM-1 (with AZsQRPion LED SWR indicator kit installed), Pixie 2, 38 special, Ten Tec 6 meter receiving converter, Fireball 40 transmitter, KnightSmite, and a SuperTick keyer. Thanks to all who brought items as they really made the display impressive.

There was also vendor information from Small Wonder Labs, Milestone Technologies, MFJ, Ten Tec, Hands Electronics, Kanga US, and 'Joy of QRP' by Ade Weiss (W0RSP) flyers. Sample newsletters from NorCal, G-QRP, ARCI, St. Louis QRP Society, CW Operators QRP Club, NW QRP, and (of course) the Iowa QRP Club were there as well.

My first surprise of the day was Walt (N9MZP). He stopped by to say hello and talk about QRP. He saw a previous posting (of mine) on QRP-L about the IAQRP participation at the hamfest and sent me an Email. He was there bright and early and stopped by to say hello. Plus he brought some of his goodies for the table (even though he was not a member of the club....but hopefully that will change). Now this is a real QRP'er!

Another highlight of the day was the St. Louis Audio Amp boards donated by the St. Louis QRP Society. The boards were available to anyone who wanted them plus if the kit was built at our display we provided the board mounted parts.

We gave away many boards and had two built at the hamfest. Thanks to Jeff (WOODS)

who brought the soldering station and industrial vise which made things very easy for our builders (best to spoil them early hi). Again our thanks to the SLQS

and Dave Gauding (NF0R) for their support!

NorCal donated an Elmer 101 issue and logbook as doorprizes.

Congratulations

to Jon Book (KB0EDE) who won the Elmer 101 issue and Randy Swemline KB9KUZ who won the logbook. Once again my thanks to Doug and Jim of NorCal who have always supported our club.

The crowd was a good one and the table seemed to be hopping quite a bit. I finally

took a break near lunch time to make a 'quick pass' of the vendor area. It didn't take

long before I was at Paul Washa's table(s). Paul as you recall helped the IAQRP

Club put together several group buys on books last year. There is another one in

the works which should be announced in late October or early November. I always buy a book from Paul as he has quite a inventory that he brings to these

events. I picked up a copy of the new ARRL Antenna Compendium when I noticed a familiar book. Paul now carries the 'Joy of QRP' by Ade Weiss (W0RSP). For those of you who needing a copy look Paul up at a hamfest. It is a classic QRP book and many consider it to be the 'bible' on QRP!

Finally the time came to pack up and head back west to the Des Moines area. It was a great day (to be indoors hi) and a lot of fun spreading the good word.

I would like to thank the following people who helped out with the display: Jeff Woods (WOODS), Larry Stambaugh (WB0RMT), Walt Holling (N9MPZ) and Alex Stambaugh (KC0EBK). You guys made the display a real success!

72, John NU0V

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Date: Mon, 4 Oct 1999 22:34:56 EDT  
From: HWRM1SS@aol.com  
To: njqrp@njqrp.org, qrp-1@lehigh.edu  
Subject: [52223] WTB - Norcal Resistor and Capacitor Kits  
Message-ID: <ab4ea12b.252abdd0@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Fellow QRPers,  
During my summer move from NJ to PA I lost both my NorCal Resistor Kit and my NorCal Capacitor Kit -- If there is anyone out there that has one or both please contact me as I would like to purchase them...  
Thank you,  
Howard K3HW

-----  
Date: Tue, 05 Oct 1999 02:39:05 +0100  
From: "KA5T Larry Wise" <lewise@inetport.com>  
To: "qrp" <qrp-1@lehigh.edu>  
Subject: [52224] Tuna Tin 2 pi output ckt  
Message-ID: <199910050238.VAA17864@admin.inetport.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Someone recently mentioned that the harmonic suppression in this rig seems to leave something to be desired.

Well I began looking through the 97 ARRL handbook and the original TT-2 article to try and figure out what the harmonic suppression of this PI net is.

Talk about getting lost in the filter swamps!!! ?

As near as I can tell, the info on designing PI nets for amplifier tanks does not give any info on harmonic suppression. (13.6). The only thing that I can find is the statement:

"Harmonic suppression of a pi network is a function of the impedance transformation and the QL of the circuit. Second-harmonic attenuation is approximately 35 db for a load impedance of 2000 ohms in a pi network with a QL of 10. The third harmonic is typically 10 db lower and the fourth approximately 7 db below that." (see page 13.5)

There is no function definition or pointer to one.

There seems to be no other design info for pi nets in the handbook.

The pi net used in the TT-2 uses a QL of 1 and R1 of 60 ohms (device side) and R2 of 50 ohms (ant side) so it would not surprise me if the attenuation of harmonics is not all that great.

I looked in the August 1983 reference for more info, but could not find any attenuation info there....

Any gurus out there who can tell us how to compute the harmonic attenuation of a pi net?????

Larry KA5T

-----  
Date: Mon, 4 Oct 1999 23:02:21 -0500  
From: "George Heron" <n2apb@erols.com>  
To: "NJQRP" <NJQRP@njqrp.org>, "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [52225] Fireball 1.5W Amp with TT2  
Message-ID: <00e401bf0ee6\$72580020\$e398accf@computer>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Several people have asked .. yes, the Fireball 1.5W Amplifier "bag o' parts" kit from the Jersey QRP Club can be used to boost the output of your Tuna Tin 2 transmitter.

If you already have a FB40 transmitter built up with the optional components for the 1.5W amplifier, it's a piece of cake to pipe the nominal 350 mW TT2 RF signal into the Amp portion of the FB40 pcb (instead of using the FB40 transmitter portion as input). Just slice the near-horizontal trace on the left side of the IN pad and connect your TT2 output to this INput pad to the amplifier.

In the same fashion, you can also use the TiCK keyer on the FB40 pcb (if you installed this option too) to key your TT2 by lifting pin 7 of the existing oscillator can and connecting a wire from the KEY pad in the lower-left portion of the board over to the KEY input of the TT2. This mod will also work nicely with the FB Amp mod discussed above.

(BTW, you'll also need to closely locate both boards (FB40 & TT2) and connect the ground planes of both project boards together.)

If you don't have a FB40 or Amp kit to start with, you can get just the pcb and the Amp components and start from scratch. In fact, the board was designed with this in mind ... you can carefully slice the board at the "dotted line" indicated on the pcb top side and end up with a 1.25" x 2" amplifier "brick" when populated with the components. You could connect up and tuck this 13 dB module down inside the Tuna can. Pretty neat.

All Fireball information mentioned here is detailed on the Jersey QRP website: <http://www.njqrp.org/fireball40/>

72, George N2APB  
n2apb@amsat.org

-----  
Date: Mon, 04 Oct 1999 22:57:00 -0400  
From: Pete Burbank <plburbank@kih.net>  
To: <qrp-l@Lehigh.EDU>  
Subject: [52226] Sawmill  
Message-ID: <3.0.32.19991004225656.0068589c@kih.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Has a sawmill been installed on 7040?  
73 Pete NV4V

-----  
Date: Mon, 4 Oct 1999 20:16:17 -0700 (PDT)  
From: Jim Hale <kj5tf@yahoo.com>  
To: QRP-L <qrp-l@Lehigh.EDU>  
Subject: [52227] Milliawatt/M  
Message-ID: <19991005031617.28773.rocketmail@web703.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Saturday evening found me with time for some mobile milliawatt in the pick up truck.  
I was parked outside Fayetteville, Arkansas in a quiet

spot from 8 - 9pm. I had my QRP+, WM-2 and 30M Hamstick to keep me company. I set the QRP+ for 100mW and found W9YK CQ'ing. I called him & 1st try he heard me. Todd gave me a 599 from near Chicago! We had a little rag chew and said our 73's.

Next to come was WB0CFF in MN. I started out with 100mW & a 549, and reduced my power to 25mW and got a 249 from Carl. I had worked Carl before on 160M and we got down to 40mW I think. Carl has a 204' Zepp and hears everything on the band with his Omni6. Milliwatting is fun, and can be done with any antenna.

Even mobile!

73/72 & sometimes 71's de Jim KJ5TF  
<http://www.qsl.net/kj5tf/>

=====

-----  
Do You Yahoo!?  
Bid and sell for free at <http://auctions.yahoo.com>

-----  
Date: Mon, 4 Oct 1999 23:29:38 EDT  
From: KG8L@aol.com  
To: qrp-1@lehigh.edu  
Subject: [52228] Found: Unusual source for #24 magnet wire  
Message-ID: <aaaa1949.252acaa2@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

This may be a little OT, but given all the discussion about building, I think it may be appropriate.

I was browsing through the local Lowe's Home Center a couple days ago and couldn't resist a trip down the hardware aisle. They have one of those neat, well stocked array of drawers with 'unusual' hardware. While rifling through the drawers to see what I couldn't live without, I came across plastic bags filled with 50' of #24 enamel coated magnet wire! It was something like \$8.00 for 50 feet, which to any builder in need of a toroid, is a great deal!

I urge you all to check your local Lowe's (no...I don't work for them!!) to check out all the goodies in the hardware aisle!



72/73,

Mike  
KG8L/5  
Wichita Falls, TX

-----  
Date: Mon, 04 Oct 1999 23:32:35  
From: Robert McConnell <rmcconne@lightlink.com>  
To: wd4et@juno.com  
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [52229] Re: Solder suckers/static  
Message-ID: <3.0.6.16.19991004233235.1fbf55c2@pop.lightlink.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

A number of years ago I worked for NCR Ithaca. While I was writing service manuals, the manufacturing engineers were researching the effects of static electricity on the assembly lines. When they got done, the entire factory was converted into a static free workplace. They estimated the cost savings in final repairs, out of box and warranty failures at just under \$3,000,000.00 in the first year. Not bad for a mere \$120,000.00 in anti-static equipment and training.

It turns out that as little as 300EV discharges can modify the characteristics of CMOS circuits. These changes are not detectable immediately, but lead to total failure, or in the worst case, intermittent failures after a few hundred hours of operation. Less than 1000EV can completely destroy the chip. For a simple comparison, you cannot see, hear or feel a discharge until it reaches about 5000EV.

As a result, I don't open any of my equipment without a grounded wrist strap already attached to me. A 1M0 (one megohm) resistor is about the right size to drain off the static without creating a safety problem.

Bob McConnell  
N2SPP

At 06:05 PM 10/4/99 -0400, wd4et@juno.com wrote:

>Someone else mentioned that static was an overblown issue. I agree to a  
>point. Here in Florida with high humidities and usually warm  
>temperatures, it is less of a problem. However, on cold dry days, merely  
>moving in a chair can generate sparks.

>

>With CMOS IC's, a very small charge can damage a junction. It is just  
>plain worth the effort to guard against static. The problems can be  
>insidious and intermittent, not just outright failures.  
>  
>If you ever want to witness a static charge, touch a good ground before  
>picking up an LCD still new in the package. Run your finger accross the  
>face of the display. While still wrapped in the packaging and embedded in  
>static free foam, it will ususally generate a display. Food for thought.  
>  
>Just my 2 cents and probably not worth that much!  
>  
>73, Jeff

-----  
Date: Mon, 04 Oct 1999 20:43:29 MST  
From: "Chuck Adams, K7Q0" <k7qo@hotmail.com>  
To: qrp-l@lehigh.edu  
Subject: [52230] ARS Test de K7Q0  
Message-ID: <19991005034330.35640.qmail@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

Gang,

As many many of us have posted over the last 6+ years. Get on  
for the contests if you need states.....

I got on for an hour for the test. Picked up 6 new states which  
now makes my total count 33 for the new QTH in just over two weeks.  
All this at QRPp levels and almost all but 3 or 4 ARE 2xQRP or  
2xQRPp. Goes to show that there are a lot of active QRPers that  
do get on the air.

Don't know what Doug's count is at for his states, as he mentioned  
in previous posts that he was picking up new ones. The neat one I got  
was Jim, AL7FS, for my AK on 20m. Jim was a good 559 and I got a  
339, which I'll gladly take any day for a new state. Then worked  
him later when he was the only signal that I could hear on 20m  
and band was just about done for the night.

So thanks to those of you I worked tonight in the ARS SP contest.  
See you next month.

Rig was NN1G Mark II out of the closet after a few years of  
gathering dust and turned down to 500mW with 0.8Ahr battery.

See ARS page when I get the score done and submitted. Gotta burn the midnight oil for the Pacifion project and a TT rig.

FYI

-----  
Get Your Private, Free Email at <http://www.hotmail.com>  
-----

Date: Mon, 4 Oct 1999 20:46:06 -0700 (PDT)  
From: "David D. Meacham" <ddm@datatamers.com>  
To: KA5T Larry Wise <lewise@inetport.com>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [52231] Re: Tuna Tin 2 pi output ckt  
Message-ID: <Pine.LNX.3.96.991004204131.13676C-100000@dt1.datatamers.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Larry,  
One thing wrong with the TT2 output filter is that the caps are reversed. The larger cap goes on the low-impedance side (antenna). I doubt if this will fix the harmonic-level problem, but it may increase the output power.  
72, Dave, W6EMD

-----  
Date: Mon, 04 Oct 1999 22:58:09 -0500  
From: "Harley L. Miller" <hmliller@sound.net>  
To: qrp-1@Lehigh.EDU  
Subject: [52232] Re: solder from holes  
Message-ID: <37F97751.3AF6@sound.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

My favorite method is a round wooden toothpick. Flow the solder and shove the toothpick through the hole.

Harley L. Miller      hmliller@sound.net  
WB0ROQ

Date: Tue, 05 Oct 1999 05:18:02 +0100  
From: "KA5T Larry Wise" <lewise@inetport.com>  
To: "David D. Meacham" <ddm@datatamers.com>  
Cc: "qrp" <qrp-1@lehigh.edu>  
Subject: [52233] Re: Tuna Tin 2 pi output ckt  
Message-ID: <199910050516.AAA27938@admin.inetport.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

On Mon, 4 Oct 1999 20:46:06 -0700 (PDT), David D. Meacham wrote:

> ...  
>One thing wrong with the TT2 output filter is that the caps are reversed.  
> ...

Well, that's interesting Dave....

I've been trying to duplicate the original net using the 97 ARRL handbook formulas and I keep coming up with:

c1 = 233 pf (60 ohm side)  
c2 = 174 pf (50 ohm side)  
L = .9857 uh

using a Ql of 1...

This still puts the bigger cap on the higher Z side, but sure aren't the values that are shown in the original article.....I fiddled with QL values around 1.0, but still couldn't get the original values... I don't have any intuition about these filters either....

Maybe there are some design tables or nomographs that were used for the originals....

I think I am just going to use a 7 element cheb filter from the back of the handbook that uses standard cap values and forget about it....  
Number 97 in table 30.21 on page 30.24 looks like a likely candidate...  
Two more caps and two more toroids.....

Sure would like to find out where those original values came from tho.... :-)

Larry KA5T

-----

Date: Mon, 04 Oct 1999 22:14:08 -0700  
From: Russ Dow <n7dw@garlic.com>  
To: ku7y@dri.edu  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [52234] Re: Solder sucks  
Message-ID: <37F98920.73567522@garlic.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I just got a new Soldapullt a few days ago. It has a replaceable teflon tip. I'd call that reasonably nonconductive, but they make a more expensive model that is supposed to be anti-static.

73,  
Russ N7DW

Monte Stark wrote:

> On Mon, 4 Oct 1999, Mike Yetzko wrote:  
>  
> > Hmm, my solder sucker has a metal body, and I seem to remember  
> > something in one of the catalogs about conductive tips, but I don't  
> > know if that has to do with static discharge when it's picked up  
> > or when it actually is used and sucks.  
> >

-----  
Date: Mon, 4 Oct 1999 22:36:16 -0700  
From: Gary L Surrency <gsurrency@juno.com>  
To: qrp-1@lehigh.edu  
Subject: [52235] Spartan Sprint  
Message-ID: <19991004.223616.-303033.1.gsurrency@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

Gang,

Tonight's contest was a lot of fun. A quick look at the log shows about two pages of QSO's. 20m was good for about an hour, then I went to 40m to finish. I called WE6W several times on 20m, but either he didn't hear me or he just didn't want to talk to me anymore. hi hi. Ed, you were real

strong here.

But on 40m, I had a mini pileup going a couple of times and didn't need to call CQ SP. Right near the end, I heard Dean, KH6B in Hawaii call me! What a trip! I was using the K2 at 5w into the infamous attic dipole. I know Dean has a good pair of ears, but it was a real treat and surprise to work him on 40m. Too bad I didn't get him on 20m too.

Thanks to all that I was able to contact tonight, and I hope I didn't QRM anyone as the band changed. I pretty well stayed put on 40m, but had to move a couple of times on 20m because of all the activity.

72,

Gary Surrency AB7MY QRP-L #571 Chandler, AZ (near Phoenix)

-----  
Get the Internet just the way you want it.  
Free software, free e-mail, and free Internet access for a month!  
Try Juno Web: <http://dl.www.juno.com/dynoget/tagj>.

-----  
Date: Mon, 4 Oct 1999 23:39:27 -0600  
From: "Rod Cerkoney" <rwc@frii.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [52236] AR SP  
Message-ID: <01ed01bf0ef3\$ff9d3d80\$ea8611d8@compaq>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Folks:

At the stroke of 0100UTC, as announced by the WWVB Group buy clock, ARS N0RC started called CQ SP DE N0RC on 20 meters. When it was all over I had 28 QSOs--20 On 20, 8 on 40.  
And some of the QRP-L creme-de-la-creme in my log: Chuck, K7Q0; Gary, AB7MY, Doug, KI6DS, other regulars like Doc, K0EVZ; Steve (Hi Steve!), N0TU; Ken, N4SO (that NC20 I helped you with sounds great), and many others. Thanks one and all, QSL cards will be going out soon, some are a must have soon to be collectors item...!!! ;-)

The rig deju, why the K2 of course, my preferred QRP contest rig, made for guys who like CW, by guys who like CW! The Ant my attic doublet, an SLV kinda design based off G5RV dimensions, kinda like Doug and others have been posting about. It was under the eaves of my old house

months ago, now in the attic of the new QTH. Twin lead fed through a tuner, made from AC zip cord, it has sucked in a lot of gud QSOs for me.

Band condx here in NO CO where strange, one minute a station was 599, the next they were 449! Lotsa static. (At one point I thought the XYL had the mixmaster going, baking fresh cookies, no such luck ;-()) Spent most of my time on 20, the 40 QRN & digi-Mode QRM was the pits. I still think some of those stations are in a search & pounce mode; Scanning the band, stopping on some detected RF, then going in to "Query Mode". Kinda like the thing in one of the first Star Trek movies determined to download it's data. ;-)

Great time thanks again everybody.

---

72/3 Rod, NØRC  
da di dah

-----

Date: Mon, 04 Oct 1999 22:47:00 -0800  
From: Jim Larsen AL7FS <al7fs@pobox.alaska.net>  
To: "qrp-1@lehigh.edu" <qrp-1@lehigh.edu>  
Subject: [52237] Spartan Sprint de AL7FS  
Message-ID: <37F99EE4.6592ED13@pobox.alaska.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Greetings from Alaska!

This is the best the band has been for me for six months! I only was able to operate for a bit over an hour (0000-0005Z and 0054-0200Z) but managed 17 QSOs. For me that is wonderful. I would like to understand what WE6W does for antennas as I would swear he has a beam on 20 and 40 meters but know that that he does not. Ed was pounding in here on 40 meters and was good on 20 meters but too busy working his adoring crowd down in the Lower 48. A couple of nights ago Ed was 579 in Anchorage on 40 meters!

I managed to work UT, AZ, CA, AL, NM, OR, WA, CO, AB, and three in TX. Milliwatters were W5XE, W7ILW and some character with a call of K7Q0. Heck, I even worked KI6DS. Yep...band was in good shape. All contacts except for WE6W were on 20 meters.

Jim

--

73, Jim Larsen, AL7FS <http://www.qsl.net/al7fs/>  
Anchorage, Alaska  
mailto:al7fs@qsl.net  
ICQ 11022915

-----

Date: Tue, 5 Oct 1999 04:01:06 -0500  
From: "Randy Jouett" <rules@bellsouth.net>  
To: <kd1jv@moose.ncia.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [52238] Re: Solder from holes  
Message-ID: <01ed01bf0f10\$88c13500\$5366d6d1@spock>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

----- Original Message -----

From: Steven Weber <kd1jv@moose.ncia.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Sent: Monday, October 04, 1999 9:07 AM  
Subject: RE: Solder from holes

Hi Steve,

> Yes, this does work.

>

> I bought some cheap wick (\$5.00 for 50 ft roll) It was a new roll,  
> but in an unsealed package, so the flux had dried out. Thankfully, I  
> bought a bottle of liquid flux at the same time. I use a "Q" tip to  
> wipe a little flux on the braid and works FB.

Here's what I do when I'm in the field and have to fix a busted piece of gear. Get a piece of coaxial cable, remove the braid, shine it up with a knife, apply a dab of flux, and get after it. Silver-plated braid from teflon-dielectric coaxial cable really works great here -- even better than the real thing! -- but that's a kind of expensive route to take. OTOH, if you're in the field and have to get the thing fixed then and there, it'll work :^).

You can also solder an alligator clip onto the opposite end of the braid. Clip it to a convenient ground source (usually the piece of gear that you are working on) and you won't have to



worry about damage from electro-static discharge.

72/73,

----

Randy Jouett, AB5NI

-----  
Date: Tue, 5 Oct 1999 12:03:49 +0200  
From: DL2FI@t-online.de (Peter Zenker)  
To: "QRP-L via PoP3" <qrp-l@lehigh.edu>  
Subject: [52239] new e-mail address  
Message-ID: <001301bf0f18\$ebd1f320\$22679fc1@zenkerpn>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Hello fellow QRPers,

due to some major problems with Compuserve ( they allow a maximum of 250 mails in the box now. If I couldnt read out the box for to days all my friends and the listserver as well got a "mailbox full" reply from CSI) I had to change my mail address.

I unsubscribed QRP-L and did a new subscription with the new e-mail address.

If you send mails to me please use the new adress:

DL2FI@t-online.de

Thanks  
Peter, DL2FI  
DL-QRP-AG

-----  
Date: Tue, 05 Oct 1999 07:36:26 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-l <qrp-l@lehigh.edu>  
Subject: [52240] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37F9E2BA.A4601EA4@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

KA5T Larry Wise wrote:

> Any gurus out there who can tell us how to compute the  
> harmonic attenuation of a pi net?????

Larry,

Maybe it's something on of the SPICE simulation experts can model for  
us? (Or show us how to model?)

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----  
Date: Tue, 5 Oct 1999 07:13:15 -0500  
From: "John Burnley" <burnleyia@home.com>  
To: <IaQRP-L@divis17.ped-gen.uiowa.edu>  
Cc: <qrp-l@lehigh.edu>  
Subject: [52241] Other West Liberty Cudos  
Message-ID: <000d01bf0f2b\$00f91f00\$1b790818@c149522-a.west1.ia.home.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Sorry for the extra bandwidth but I forgot to mention  
two important people who helped the IAQRP Club for the  
West Liberty hamfest. Adam Kanis (AK0P) and  
Jeff Dodd (KI0JP) made all the arrangements  
(including financial) for the club to have the  
display table (and I might add a very good location).  
Thanks much to you both for the help and for making  
it happen for the club!

72, John NU0V

-----  
Date: Tue, 05 Oct 1999 08:23:03 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>

To: qrp-1 <qrp-1@lehigh.edu>  
Subject: [52242] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37F9EDA7.F9FEA7B2@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

KA5T Larry Wise wrote:

>  
> On Mon, 4 Oct 1999 20:46:06 -0700 (PDT), David D. Meacham wrote:  
>  
> > ...  
> > One thing wrong with the TT2 output filter is that the caps are reversed.  
> > ...  
>  
> Well, that's interesting Dave....  
>  
> I've been trying to duplicate the original net using the 97 ARRL handbook  
> formulas and I keep coming up with:  
>  
> c1 = 233 pf (60 ohm side)  
> c2 = 174 pf (50 ohm side)  
> L = .9857 uh  
>  
> using a Ql of 1...  
>  
> This still puts the bigger cap on the higher Z side, but sure aren't  
> the values that are shown in the original article.....I fiddled with  
> QL values around 1.0, but still couldn't get the original values...  
> I don't have any intuition about these filters either....  
>  
> Maybe there are some design tables or nomographs that were used  
> for the originals....  
>  
> I think I am just going to use a 7 element cheb filter from the back of the  
> handbook that uses standard cap values and forget about it....  
> Number 97 in table 30.21 on page 30.24 looks like a likely candidate...  
> Two more caps and two more toroids.....  
>  
> Sure would like to find out where those original values came from tho.... :-)

Larry (or anybody else),

Can you tell me where the 60 ohms came from? I thought output impedance was approximated by the square of the supply voltage divided by 2 times the output power. That would make about 1.5 watts at 13.8 V. What have I overlooked?

FWIW, I tried modeling the output network from Dave Fifield's schematic of the TT2-MRX schematic. (A 270 pF cap on the driven side, 220pF on the antenna side, and 1.36uH inductor). I used Microsim's DesignLab demo.

With the values given, and using a 60 ohm series resistance at the input and 50 ohms to ground at the output, I get 2nd harmonic attenuation of about 6 db.

If I use 470pF for both caps (from a table in Chapter 2 of "Solid State Design for the Radio Amateur") and about 1.4 uH (from fiddling around with the inductance in the simulation, centering the peak response on 7.040 MHz) I can get a second harmonic attenuation of about 19 db.

DISCLAIMER: I don't know what I'm doing, I just started taking a class in circuit simulation, and I'm hoping someone can show me what I'm doing wrong. Anyone? thanks!

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----  
Date: Tue, 05 Oct 1999 08:58:35 -0400  
From: Bruce Muscolino <w6toy@erols.com>  
To: lewise@inetport.com  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [52243] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37F9F5FB.2949@erols.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Larry, and gang,

I just did a quick simulation of teh TT2 filter using ARRL's Amateur Radio Designer. The basic filter is pretty poor! When I did the board layout for my clone I was going to substitute a 'double pi net' filter from another article. However time got the better of me and I left it out. There is room on my board and I sort of suspect there is room on Dougs too. Use the following values:

                  .91 uH                  1.2 uH  
in-----xxxxxxx-----xxxxxxx-----out  
          |                                  |                                  |  
          680 pF                             1200 pF                             470 pF

|                  |                  |  
gnd-----

I think I remembered there correctly. It looks like the 2nd harmonic is about 40 dB down.

You can also improve the existing filter by using the following values,  $C_{in} = 390$  pF,  $L = 1.4$   $\mu$ H, and  $C_{out} = 270$  pF. The second harmonic looks like about 20 dB down here.

Note that these are simulation results only. I have not done any building to confirm my results, However I do remember my original circuit, built back in 1976 had a very strong second harmonic!

73

-----  
Date: Tue, 05 Oct 1999 09:08:56 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-l <qrp-l@lehigh.edu>  
Subject: [52244] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37F9F868.1448D26F@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

Bruce Muscolino wrote:

> You can also improve the existing filter by using the following values,  
>  $C_{in} = 390$  pF,  $L = 1.4$   $\mu$ H, and  $C_{out} = 270$  pF. The second harmonic looks  
> like about 20 dB down here.  
>  
> Note that these are simulation results only. I have not done any  
> building to confirm my results, However I do remember my original  
> circuit, built back in 1976 had a very strong second harmonic!

Bruce,

When simulating, is the source impedance in series with the signal source?

I'm still trying to get a handle on these things.

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----  
Date: Tue, 5 Oct 1999 09:17:00 EDT  
From: DSJKALLEN@aol.com  
To: qrp-l@lehigh.edu  
Subject: [52245] FS: Ten-Tec Argonaut 509 Chassis Parts  
Message-ID: <1a0dfa06.252b544c@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

I have the following parts available for the Argo 509. All parts are NOS (New - Old Stock), parts are new, but never used - have been in storage for a number of years.

- 2 ea. Black Plastic Dial Bezel
- 2 ea. Dial Glass (actually, clear plastic - of course!)
- 1 ea. Original small 509 Knob with aluminum dial skirt
- 1 ea. Large 509 Knob with aluminum dial skirt
- 5 ea. Plastic end caps with walnut vinyl insert
- 1 ea. Front Panel with all silk screening, less aforementioned dial bezel and glass
- 1 ea. Top Cover (covered with Walnut Vinyl) with Speaker Bezel

Also, have new dial glass for a Model 540 (analog Triton IV)

Please contact me for prices.

73,  
Don Allen W9CW  
Urbana, IL

-----  
Date: Tue, 5 Oct 1999 09:17:35 EDT  
From: Bigbob97@aol.com  
To: QRP-L@lehigh.edu  
Subject: [52246] HTX 100  
Message-ID: <d0e33b94.252b546f@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Good morning all,

Yesterday I described transmitting problems with my Radio Shack HTX100 10 meter rig. I discovered the problem to be a 2 amp slo blow fuse which I guess was acting like a voltage dropping resistor. Finally, the fuse blew. I replaced it with a 6 1/4 amp slow blow (wonder where I picked up that one) and all problems are solved.

Well, there is another problem and that is the fact that whenever the rig is in Tx there is a low level signal generated at the transmit frequency. Yesterday I thought it was a slowly decaying CW signal as the key was released. This is not true. Whenever the TR switch is in TX there is a continuous signal generated which goes away when the rig returns to Rx and has nothing to do with whether or not you are key down. The "carrier balance" control will just about eliminate the signal when in SSB but not when in CW. The signal in question is not strong as I cannot measure it on the watt meter and the K2 with no antenna attached will not copy it over twenty feet away. Nevertheless, I cannot see how anyone could use the HTX 100 with a separate receiver unless this problem is remedied. In transceive there is no difficulty.

I hope this story, especially the part about the fuse, will be of help to someone.

73,  
Bob WB2DHK in Jersey City, NJ

-----  
Date: Tue, 05 Oct 1999 13:20:08 +0100  
From: "KA5T Larry Wise" <lewise@inetport.com>  
To: "dlh1009@ritvax.isc.rit.edu" <dlh1009@ritvax.isc.rit.edu>  
Cc: "qrp" <qrp-1@lehigh.edu>  
Subject: [52247] Re: Tuna Tin 2 pi output ckt  
Message-ID: <199910051318.IAA16717@admin.inetport.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

On Tue, 05 Oct 1999 08:23:03 -0400, David Hinerman wrote:

>  
>Larry (or anybody else),  
>  
>Can you tell me where the 60 ohms came from? I thought output impedance  
>was approximated by the square of the supply voltage divided by 2 times  
>the output power. That would make about 1.5 watts at 13.8 V. What have I  
>overlooked?  
>

Dave:

In his original article (May 1976 QST page 15) Doug (W1FB then W1CER) said:

"The collector impedance of Q2 is approximately 250 ohms at the power level specified. Therefore, T1 is used to step down the value to around 60 ohms(4:1 transformation) so that the pi network will contain practical values of L and C. The pi network is designed for a low Q (loaded Q of 1)

to assure ample bandwidth on 40 meters. This will eliminate the need for tuning controls. Since the pi network is a low-pass filter, harmonic energy is low at the transmitter output. The pi network is designed to transform 60 to 50 ohms."

Since the voltage shown in the schematic is 13 volts, we can assume that the design power out is about 338 mw.

$$R_L = V_{cc} \cdot V_{cc} / 2 \cdot P_o$$

$$P_o = V_{cc} \cdot V_{cc} / 2 \cdot R_L$$

$$P_o = 13 \cdot 13 / 2 \cdot 250$$

$$P_o = 169 / 200$$

$$P_o = .338 \text{ watts}$$

Indeed, early in the article Doug said: "A few hours later 350 milliwatts of rf were being directed toward the antenna, and QSOs were taking place."

What we are probably seeing here is "experienced designer license" using the TLAR principle... (That Looks About Right) .... :-)

And remember, he didn't have a 500Mhz computer setting on his desk running calculations to 5, 10, or 20 decimal places.... :-) or Spice simulations...

And...this was a weekend project with most of the parts picked up at Radio Shack... :-)

Larry KA5T

-----  
Date: Tue, 5 Oct 1999 21:18:59 +0800

From: "Sly (9M8SL)" <cqsly@tm.net.my>

To: <yb6ld@arrl.net>

Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [52248] Re: Query about Asian paddle source

Message-ID: <19991005131859.MMYU581@User>



Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>Date: Tue, 28 Sep 1999 03:06:56  
>To: <yb6ld@arrl.net>  
>From: "Sly (9M8SL)" <cqsly@tm.net.my>  
>Subject: Re: Query about Asian paddle source  
>Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
>X-Attachments: C:\WINDOWS\DESKTOP\MYBRIE~1\KEY.JPG;  
>  
>Tabi' Apai Donny & Gang,  
>  
>Nice to hear my native Iban tongue echoes by someone on the list!  
>Ok Donny, the MK44 Whiterook is a pocket-sized plastic paddle of abt  
>2 x 2 inches & it's available from this particular site for orders outside  
the USA:  
>  
><http://www.west.net/~wpc/dxorderform.html>  
>  
>I got mine for abt 55 Malaysian dollars (total abt US\$14 ) via air mail  
(abt 2 weeks).  
>No idea abt the conversion rate to Indonesian rupiah but should be vy  
reasonable.  
>  
>Salam Tujoh Puloh Tiga kepada anda serta keluarga di Indonesia.  
>Semoga bisa ketemu di udara pada lain kesempatan. Hpe my Bahasa Indonesia  
is a.o.k. hee...hee...  
>  
>73 de Sly, 9M8SL  
>fm 'The Hidden Paradise of Borneo'  
>  
>  
>  
>  
>At 06:55 PM 10/4/99 +0700, you wrote:  
>>> From: Sly (9M8SL) <cqsly@tm.net.my>  
>>> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
>>> Subject: Re: Query about Asian paddle source  
>>> Date: Monday, October 04, 1999 14:35  
>>>  
>>> Hi Pete,  
>>>  
>>> I am in East Malaysia, guess its pretty close to ur brother !!!  
>>> I recommend the Whiterook paddle MK44 (hope the model no. is correct),  
>>which  
>>> I have and is still using. It is small, cheap and vy light. After p&p, it  
>>is  
>>> still the cheapest key I can get here...much cheaper than any Japanese

>>> models found in Singapore. The postage is reasonable for it to be shipped  
>>> air mail to Malaysia, less then US\$7...I think, can't remember exactly.  
>>Sly Nama total cost paddle tu (paddle + shipping)?  
>>Ditu nadai cheap paddle unless you build it yourself hi but then not  
>>enough tools to do it hi.  
>>  
>>Think you must have a lot of fun at the beach, when I live there, we have  
>>no  
>>chance of a beach affair so just read it from stories hi.  
>>  
>>Vy 72/73 de Donny kaban nuan di Indonesia YB6LD/1  
>>  
>>  
>

-----  
Date: Tue, 5 Oct 1999 06:20:02 -0700 (PDT)  
From: Brad Bradfield <b\_bradfield@yahoo.com>  
To: Message posts for QRP-L <qrp-l@lehigh.edu>  
Subject: [52249] ANYBODY AWAKE IN TUCSON??  
Message-ID: <19991005132002.7357.rocketmail@web222.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Hello dudes and dudettes - -

If you ain't in Tucson, hit the DELETE button now . .  
.

I'll be in Tucson on business all next week and on and  
off till at least the middle of November when I will  
no longer work for "Mother Raytheon." Any ham or QRP  
related stuff going on? Anyone want to get together  
for supper? I'll have my Sierra along so plan on  
operating from the hotel. 20, 30, and 40 Meters.  
Listen for me evenings.

I'll be travelling to the desert sometime between  
Friday and Monday. This weekend is nearest New Moon.  
Any astronomy club viewing parties going on?

72's es 73's,

Brad, W5CGH

=====

Brad Bradfield, PE                      Soon to be ex-Systems Engineer  
W5CGH (ex WB0CGH)                      for Raytheon Systems Company

Real men talk with their fingers!!

NORTEX      QRP-L #377      QRP-ARCI #10012      SMIRK #4906  
ARS #72      NORCAL      Austin QRP Club #i

-----  
Do You Yahoo!?  
Bid and sell for free at <http://auctions.yahoo.com>

-----  
Date: Tue, 05 Oct 1999 13:38:39 +0100  
From: "KA5T Larry Wise" <lewise@inetport.com>  
To: "w6toy@erols.com" <w6toy@erols.com>  
Cc: "qrp" <qrp-1@lehigh.edu>  
Subject: [52250] Re: Tuna Tin 2 pi output ckt  
Message-ID: <199910051337.IAA18093@admin.inetport.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

On Tue, 05 Oct 1999 08:23:22 -0400, Bruce Muscolino wrote:  
>Probably the easiest was to improve the TT2 is to change the output  
>filter from a single pi to a double pi-net. ...

Bruce and gang:

The filter tables in the later ARRL Handbooks (mine is '97) contain lots of good dope developed by Ed Wetherhold W3NQN, who is, i guess, a real bonified 'Filter GURU'.

I was considering using a 5 element chebyshev filter behind the existing filter to get the additional harmonic attenuation and still preserve the Z transformation of the existing circuit.

Of Course..... We could convert this to a 1.44 watt rig using the two transistor circuit from the Solid State Design for the Radio Amateur book (W7Z0I and W1FB)... and add the better filter from the W3NQN data, as Rev George has done in his six pack package... Then you probably won't run it off of 9 penlite batteries.. :-)

But that's probably another story as Nils would say....

Larry KA5T

-----  
Date: Tue, 5 Oct 1999 06:45:17 -0700  
From: Dave Barrett <DBarrett@creo.com>  
To: "'QRP-L'" <qrp-l@Lehigh.EDU>  
Subject: [52251] Static...a few facts to think on.  
Message-ID: <CE0A40BFE0CDD111A2B800A0C99B83EB02618E02@msgcreo2.creo.bc.ca>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"

Hi All

There's been a number of postings re static damage some factual some misguided.

Please remember, modern I/C's and discrete components are, due to their nature (being small) very easily damaged. The geometry of the I/C is extremely small these days, internal traces are typically a few microns wide and therefore insulation between layers of the I/C are similarly very thin also. The next point to remember is that many I/C's today have unprotected FET inputs and are therefore very susceptible to static. Laser diodes are probably the most easily damaged !!

To put things into some perspective: I/C internal circuitry is generally driven from a few micro volts and power supplies vary from 3.3 to tens of volts. Given the manufacturers provide many times that of safety margins in their internal insulation (typically a few hundred volts) consider the following:

Walking past a repair bench in normal synthetic material clothing generates typically 20Kv,  
Sitting or standing to or from a standard office chair generated up to 18Kv, walking on carpet generates up to 50Kv, just breathing...sitting still from 6 to 9Kv.

>From these figures one can safely assume that modern components definitely do become damaged by static electricity. This most times doesn't kill the device immediately but shortens its life. The moral of the story is.....if you don't want angry customers and expensive warrantee repairs coming back to your business, please take static seriously, remember we aint working with tubes any more :-)

72 Dave Vancouver BC Canada (Laser Jock)

Dave VE7PCC Vancouver BC Canada

-----  
Date: Tue, 05 Oct 1999 09:56:41 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-l <qrp-l@lehigh.edu>  
Subject: [52252] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37FA0399.D1AC22DC@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

KA5T Larry Wise wrote:

>  
> On Tue, 05 Oct 1999 08:23:03 -0400, David Hinerman wrote:  
>  
> >  
> >Larry (or anybody else),  
> >  
> >Can you tell me where the 60 ohms came from? I thought output impedance  
> >was approximated by the square of the supply voltage divided by 2 times  
> >the output power. That would make about 1.5 watts at 13.8 V. What have I  
> >overlooked?  
> >  
>  
> Dave:  
> In his original article (May 1976 QST page 15) Doug (W1FB then W1CER) said:  
> "The collector impedance of Q2 is approximately  
> 250 ohms at the power level specified. Therefore, T1 is used to step down the  
> value to around 60 ohms(4:1 transformation) so that the pi network will contain  
> practical values of L and C.

Larry,

What's Morse for "D'OH! "? That's what I overlooked - the transformer. I saw somebody else on the list mention the TT2 was capable of 350 mW, so I back-calculated to a collector impedance of 272 ohms. Not too bad for a first try!

> The pi network is designed for a low Q (loaded Q of 1)  
> to assure ample bandwidth on 40 meters. This will eliminate the need for tuning  
> controls. Since the pi network is a low-pass filter, harmonic energy is low at  
> the transmitter output. The pi network is designed to transform 60 to 50 ohms."  
>  
> Since the voltage shown in the schematic is 13 volts, we can assume that the  
> design power out is about 338 mw.  
>

>  $RL = V_{cc} \cdot V_{cc} / 2 \cdot P_o$   
>  $P_o = V_{cc} \cdot V_{cc} / 2 \cdot RL$   
>  $P_o = 13 \cdot 13 / 2 \cdot 250$   
>  $P_o = 169 / 200$   
>  $P_o = .338$  watts  
>  
> Indeed, early in the article Doug said: "A few hours later 350 millwatts of rf were  
> being directed toward the antenna, and QSOs were taking place."  
>  
> What we are probably seeing here is "experienced designer license" using the  
> TLAR principle... (That Looks About Right) .... :-)

Not that I'd ever admit using that principle myself. (Grin)

> And remember, he didn't have a 500Mhz computer setting on his desk running  
> calculations to 5, 10, or 20 decimal places.... :-) or Spice simulations...  
>  
> And...this was a weekend project with most of the parts picked up at Radio  
Shack... :-)

There really is such a thing as "good enough" (although most of the engineers I work with will disagree). Also, I'm just trying to understand this black art called RF design. Thanks!

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----  
Date: Tue, 05 Oct 1999 09:10:21 -0500  
From: "John Burnley" <JBurnley@ifmc.org>  
To: <qrp-1@lehigh.edu>  
Subject: [52253] Recommendations for 10 meter mag mount  
Message-ID: <s7f9c08f.039@ifmc.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: quoted-printable  
Content-Disposition: inline

I had a Radio Shack CB antenna cut for 10 meters and it just did not cut the mustard. Limited use and now looks like the coil is shorted or broken. Can anyone recommend a good 10 meter mag mount that is pretty

durable? I've had Larsen and Antennx (sp?) mentioned but do not have any experience with either. Any=20 comments appreciated. Please respond to me=20 privately to keep list traffic down to a minimum. Thanks much in advance!

72, John NU0V

-----  
Date: Tue, 5 Oct 1999 22:25:54 +0800  
From: "Sly (9M8SL)" <cqsly@tm.net.my>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [52254] Screeching sounds all over...  
Message-ID: <19991005142554.MRLW581@User>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hi Gang,

I have often heard some kind of vy loud screeching sounds/noises right across the HF bands. When it comes on, all HF signals are being blocked. Could these be some form of over-the-horizon radar from some military installations or fighter planes flying around and emitting it at short intervals across the skies ??? Just my wild guess or is my imagination running wild...heeheee...

I guess there must be some of the more technically-inclined among us who knows the answer. Would love to know and I've seen some on the list are also asking similar questions abt some 'buzzing' noises...

Sincere 72 es pse tell all,  
Sylvester (Sly) Liew, 9M8SL a.k.a. 'The "wild" man of Borneo'  
from "The Hidden Paradise of Borneo"

-----  
Date: Tue, 5 Oct 1999 08:28:29 -0600  
From: "Dick Schneider" <dschneider2@uswest.net>  
To: <wd3p@juno.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [52255] Re: Fun mWatt Weekend  
Message-ID: <00b101bf0f3d\$e4d43f40\$1a46b5d1@dnvr.uswest.net>  
MIME-Version: 1.0  
Content-Type: text/plain;

charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

FB on QRPp in the CQ QSO Party. I did the same thing, after working some Great Britian stations 5W SSB in the RSGB 21/28 MHz Contest. Had limited time, but logged about a dozen CA stations at 300MW. Great fun.

72 Dick AB0CD..

----- Original Message -----

From: Larry Cahoon <wd3p@juno.com>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Sent: Sunday, October 03, 1999 3:26 PM

Subject: Fun mWatt Weekend

> HI Gang,

>

> I played in the CA QSP party working only those counties I needed there.

> So if they weren't in a county I needed I didn't spend the time on them.

> I ended up with 35 QSOs for 36 counties. Got 10 of the 17 I need QRP and

> 18 of the 41 I needed QRPp. Some of those guys really struggled and

> worked hard to pull out my 500 mWatt signal. Most of the QSOs were on 15

> meters. 26 QSOs at 500 mWatts - from home that comes out to 4,000 + miles

> per watt each. Best QSO was at 250 mWatts.

>

> Then I picked up NG0T/M in ND this afternoon to add that to my list for

> the AR WAS QRPp contest. That brings the total this year to 48 states and

> 7.52 watts. My WAS QRPp total power now stands at 6.08 Watts. I still

> haven't gotten MT and WY this year.

>

> 73/72 de Larry.....WD3P in MD

> WAS QRPp

> WAS 1,000 Miles per Watt

> <http://www.erols.com/lejek>

>

>

> -----  
> Get the Internet just the way you want it.

> Free software, free e-mail, and free Internet access for a month!

> Try Juno Web: <http://dl.www.juno.com/dynoget/tagj>.

>

-----  
Date: Tue, 05 Oct 1999 10:35:22 -0400

From: James Owen <james.owen@nist.gov>



To: DBarrett@creo.com, qrp-1@lehigh.edu  
Subject: [52256] Re: Static...a few facts to think on.  
Message-ID: <37FA0CAA.4F0F4D33@nist.gov>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Dave Barrett wrote:

The geometry of the I/C is  
> extremely small these days, internal traces are typically a few microns wide and  
therefore insulation between layers of the I/C are similarly very thin also.

I find that while Dave if pretty much on with his comments that since  
this is my job a few corrections are in order.  
My Division (Semiconductor Electronics Division) here at NIST designs  
the standards and ways to make and measure lines in IC's and measure the  
gate oxides. Since I do the measurements a couple of thoughts. A few  
microns are BIG today. The current line width of the Intel Pentium III  
and up is 0.18 microns. This is at the limit of what I can resolve with  
the optical microscope at 1500X with white light since this is about the  
wavelength of the light. We usually look at this width with the Atomic  
Force or Scanning Electron microscope if we need to view optically.  
However, I can measure these widths using our design method of measuring  
the line width electrically. Basically the lines we measure are a bridge  
circuit. Lines with taps. We force current down the line (nanoamps) and  
measure the voltage between the taps (a bridge measurement). Knowing the  
sheet resistance of the silicon (which can be easily measured) and using  
a math formula we can calculate the line width.

The current gate oxide of some of the latest IC's are about 2 atoms.  
Think how much static voltage it will take to punch through this. It's  
really impressive to look at static damage in the microscope.

72  
Jim K4CGY  
qrp-1 #72

-----  
Date: Tue, 05 Oct 1999 10:43:24 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-1 <qrp-1@lehigh.edu>  
Subject: [52257] Re: Static...a few facts to think on.  
Message-ID: <37FA0E8C.BEBD1733@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii

Content-transfer-encoding: 7BIT

James Owen wrote:

>

> Dave Barrett wrote:

>

> The geometry of the I/C is

> > extremely small these days, internal traces are typically a few microns wide and therefore insulation between layers of the I/C are similarly very thin also.

>

> I find that while Dave is pretty much on with his comments that since

> this is my job a few corrections are in order.

> My Division (Semiconductor Electronics Division) here at NIST designs

> the standards and ways to make and measure lines in IC's and measure the

> gate oxides. Since I do the measurements a couple of thoughts. A few

> microns are BIG today. The current line width of the Intel Pentium III

> and up is 0.18 microns.

Jim,

Can you tell us what line widths today's common (i.e. hobbyist-available) analog and digital components use?

Dave

--

Dave Hinerman WD8CIV

Ontario, NY Grid FN13IF

dlh1009@rit.edu

-----

Date: Tue, 05 Oct 1999 08:47:38 MDT

From: "Jerry McCollom W0MC" <w0mc@hotmail.com>

To: qrp-l@lehigh.edu

Subject: [52258] More Stuff FS: Tick3 DIP Chip, OHR WM-2

Message-ID: <19991005144738.54811.qmail@hotmail.com>

Mime-Version: 1.0

Content-Type: text/plain; format=flowed

More shack cleaning!

FS: Tick3 Chip -- \$9 shipped

For info on the chip, see

<http://www.frontiernet.net/~embres/tick.htm>

Note: This is the CHIP ONLY.

FS: OHR WM-2

In mint condition -- \$75 shipped.

Also, I'll drop the price on my MFJ 4114 12V Rechargable Power Pack + 4000mAH NiCads to \$100 shipped. See my post from yesterday for a complete description.

73  
Jerry  
W0MC

-----  
Get Your Private, Free Email at <http://www.hotmail.com>

-----  
Date: Tue, 5 Oct 1999 15:42:11 +0100  
From: "Tony Fishpool" <g4wif@btinternet.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [52259] Re: Tuna Tin 2 pi output ckt  
Message-ID: <003a01bf0f40\$0d0331e0\$0201a8c0@corp1.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

George's article on filters based of the work done by W3NQN is on the GQRP technical web pages for those who haven't got their own local copy. The article is called "A Short Guide to Harmonic Filters for QRP Transmitter Output" and can be found at:-

[http://www.btinternet.com/~g4wif/q\\_tech.htm](http://www.btinternet.com/~g4wif/q_tech.htm)

Kind regards  
Tony - G4WIF  
GQRP Webmeister  
<http://www.btinternet.com/~g4wif/gqrp/.htm>

----- Original Message -----

From: KA5T Larry Wise <lewise@inetport.com>  
<snip>

> Of Course..... We could convert this to a 1.44 watt rig using the  
> two transistor circuit from the Solid State Design for the Radio  
> Amateur book (W7Z0I and W1FB)... and add the better filter from

> the W3NQN data, as Rev George has done in his six pack package...  
<snip>

-----  
Date: Tue, 5 Oct 1999 09:53:41 cdt  
From: wj5o@juno.com  
To: TENTEN-L@LEHIGH.EDU, QRP-L@LEHIGH.EDU  
Subject: [52260] widespread opening on 10  
Message-ID: <19991005.095344.-944843.0.WJ50@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

Hi All,  
Another GOOD day for ten meter operators.  
In the past twenty minutes I have logged 28 beacons into South Texas  
14:40 Z 5 Oct 99

WB4WOR/B	NQ2RP/B	K5AB/B	(BS)
VP8ADE/B	(antarctica)	KC2CZI/B	
W8BEP/B	W3HH/B	VA3SRC/B	
KA1NSV/B	N7LT	WA6APQ/B	
AB8Z/B	N2VMF/B	WG8T/B	
K2KL/B	W8MI/B	N3BUB/B	
WN2A/B	KB3BOE/B	VA2MGL/B	
LU1FHH/B	VE3TEN/B		
NCDXF Beacons			
ZS6DN	CS3B	4U1UN	
W6WX	LU4AA	OA4B	

73 Bill "Sparkling City by the Sea" WJ50/B 28.289MHz  
Corpus Christi, Texas

-----  
Get the Internet just the way you want it.  
Free software, free e-mail, and free Internet access for a month!  
Try Juno Web: <http://dl.www.juno.com/dynoget/tagj>.  
-----

Date: Tue, 5 Oct 1999 10:58:41 -0400  
From: "Mike Yetsko" <myetsko@insydesw.com>  
To: <JBurnley@ifmc.org>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [52261] Re: Recommendations for 10 meter mag mount  
Message-ID: <025401bf0f42\$a6c43d40\$9001a8c0@wn.net>

MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

> I had a Radio Shack CB antenna cut for 10 meters  
> and it just did not cut the mustard. Limited use and  
> now looks like the coil is shorted or broken. Can anyone  
> recommend a good 10 meter mag mount that is pretty  
> durable? I've had Larsen and Antennx (sp?) mentioned  
> but do not have any experience with either. Any  
> comments appreciated. Please respond to me  
> privately to keep list traffic down to a minimum. Thanks  
> much in advance!  
>  
> 72, John NU0V

I've use the Radio Shack Deluxe Mag Mount CB antenna for years on my HTX-100, and I've talked all over the place with it. Europe, South America, all over the US, Moscow. In fact, my contact with Moscow was a three way, with a station then in the former East Germany. I worked them QRP (about 5W with the power button out) mobile on the commute to work. They were fascinated that I was QRP mobile. After about 25 mintues, I had a few problems, so I went to high power (OK, 25 watts) to clear off as I parted the car.

I think I'd be hard pressed to get a better performing antenna on 10 meters unless I went to a full 9 foot whip.

I didn't even tune it. Just put it on the car at the shortest setting and it works fine with less than 2:1 SWR up to 28.500.

Now MOST of the CB antenna RS sells have too narrow a bandpass. But the old deluxe mag mount works beautiful. I STILL use that same Deluxe Mag Mount, which I bought about 1985 I think when they first came out. I know the design has changes slightly, but I've told a few friends about mine, and I know they've gotten current ones and no one's contacted me back to complain.

Mike Yetsko  
N1DVJ

-----

Date: Tue, 5 Oct 1999 08:14:12 -0700  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: <qrp-1@lehigh.edu>  
Subject: [52262] October Spartan Sprint Report from KI6DS  
Message-ID: <01bf0f44\$48923f40\$630a0d0a@doug.dpol.k12.ca.us>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Boy did I have fun last night!! Worked 37 Q's in 2 hours during the Spartan Sprint. Lots of guys from the list, forgot the logs this morning, darn. But will post that this evening. I was using the NorCal 20 and the NorCal Doublet fed with ribbon cable. Guys, I held a frequency for 2 hours, was working as fast as I could for about 50 minutes then the band started to fold. Wow, what fun. Right in the middle my adjustment for the dit side of the Long Island Mercury Paddles came loose, guess I was banging too hard, grin, all the excitement. My wife came out in the middle, grinned and shook her head. Later she said I looked like a kid in the candy store with a \$10 bill in his pocket.

Thanks to Russ and Richard for sponsoring this one. What a fun concept. Loved it. I am becoming more and more convinced that the original NorCal Doublet design with the ribbon cable feedline works just fine for my purposes. The ladder line idea is worth pursuing, but I think that the ribbon cable as it comes works really well. Has anyone else out there made one of these??

I worked a whole bunch of familiar calls, Bob Kellogg, Doc, Spudnut (errrr, Spudgun) Tom, Alaska Jim, Joel, Dean in Hawaiia (what a thrill it is to get called by Alaska and Hawaiia in the same contest. I still can't get used to that. Comes from being in Kansas.) Heard Russ on, but didn't work him.

Oh, by the way, equipment here was TUBBY, EL Gordo, Huge, etc. etc. Godzilla himself would be worn out trying to back pack my station, grin. Used NC20, Astron 12 power supply, Long Island Mercury paddles, see what I mean?? But my antenna, now that is a different story. NorCal Doublet made from ribbon cable, very, very trail friendly. See you next month. 72, Doug

-----

Date: Tue, 05 Oct 1999 15:04:45 GMT  
From: "Bill Todd" <zapzap73@hotmail.com>  
To: plburbank@kih.net, qrp-1@Lehigh.EDU  
Subject: [52263] Re: Sawmill  
Message-ID: <19991005150445.77784.qmail@hotmail.com>

Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

>Subject: Sawmill  
>Date: Mon, 04 Oct 1999 22:57:00 -0400  
>  
>Has a sawmill been installed on 7040?  
>73 Pete NV4V

Hi Pete -

Wow - I heard that sawmill noise last night too, up here in NW Washington state. My digital readout said that the noise was centered about 7038-39, but I could still pull out CW stations in the middle of the noise. When I moved up to about 7041, I could not longer hear it.

C U - Bill-N7MFB/7  
Port Angeles, WA

-----  
Get Your Private, Free Email at <http://www.hotmail.com>

-----  
Date: Tue, 05 Oct 1999 09:39:33 MDT  
From: "Jerry McCollom WOMC" <w0mc@hotmail.com>  
To: qrp-l@lehigh.edu  
Subject: [52264] Re: More Stuff FS: Tick3 DIP Chip, OHR WM-2  
Message-ID: <19991005153933.82621.qmail@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

The Tick3 and WM-2 are spoken for!

Thanks & 73,

Jerry  
WOMC

-----  
Get Your Private, Free Email at <http://www.hotmail.com>

-----  
Date: Tue, 5 Oct 1999 11:23:30 +0000  
From: "Steven Weber" <kd1jv@moose.ncia.net>  
To: qrp-l@lehigh.edu  
Subject: [52265] 12M

Message-ID: <199910051604.MAA03150@moose.ncia.net>

MIME-Version: 1.0

Content-type: text/plain; charset=US-ASCII

Content-transfer-encoding: 7BIT

Over the weekend, I converted my Uniden PC122x1 CB set to 12 Meters.

Pretty easy to do, simply replace the PLL xtal osc with a VFO which tunes around about 8.9 MHz. All the coils peaked up fine, except the VCO coil, which needed a 10 pfd cap across it.

Initially, I tried using an analog VFO, but it had too much drift and the freq shifted a few hundred Hz from Rx to Tx, due to the poor regulation on the internal regulated supply in the set. Rather than mess with that, I bit the bullet and used one of the mini DDS boards. At least now I know exactly where the band edges are and can tune down to the CW portion, just to hear what's going on.

Made a few Q's with it, one to Kansas and one to Aruba. Band seems dead today, but should be fun in the long run.

72,

Steve, KD1JV in the white Mountains of New Hampshire  
"melt solder"

-----  
Date: Tue, 5 Oct 1999 11:23:29 +0000

From: "Steven Weber" <kd1jv@moose.ncia.net>

To: JBurnley@ifmc.org

Cc: qrp-l@lehigh.edu

Subject: [52266] Re: Recommendations for 10 meter mag mount

Message-ID: <199910051604.MAA03155@moose.ncia.net>

MIME-Version: 1.0

Content-type: text/plain; charset=US-ASCII

Content-transfer-encoding: 7BIT

> I had a Radio Shack CB antenna cut for 10 meters  
> and it just did not cut the mustard. Limited use and  
> now looks like the coil is shorted or broken. Can anyone

John,

Those RS mag mounts don't seem to last long for some reason. The coax should measure shorted with an ohm meter. The coax is connected



across the coil, tapped a few turns from the bottom and the whip is connected to the top of the coil. So, you should measure continuity across the coax, from the center to shield and to the whip.

A big problem around here is during the winter is the salt and slush on the road gets into where the loading coil screws into the base and gets corroded, or gets into the coil assembly it's self.

Another common problem is simply a poorly crimped on coax connector.

Don't know what to recommend as a replacement. An old 102" whip would be best, but probably not practical..

72,

Steve, KD1JV in the white Mountains of New Hampshire  
"melt solder"

-----  
Date: Tue, 05 Oct 1999 12:40:07 -0400  
From: Bruce Muscolino <w6toy@erols.com>  
To: dlh1009@ritvax.isc.rit.edu  
Cc: QRP-L@LEHIGH.EDU  
Subject: [52267] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37FA29E7.45A9@erols.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Dave,

Yes it is. I used 60 ohms as the source resistance and 50 as the load resistance. The load goes from the top of the filter to ground. Please remember also, that although there is visual similarity between ARD and SPICE, that is all it is! ARD is not a SPICE Simulator. I have not run any of these filters on a Spice simulator, I will do it later today, using CircuitPro and post my results here.

73

-----  
Date: Tue, 5 Oct 1999 09:55:08 -0700  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: "Jim Stiles" <rivercity@worldnet.att.net>  
Cc: <qrp-l@lehigh.edu>  
Subject: [52268] Re: October Spartan Sprint Report from KI6DS  
Message-ID: <01bf0f52\$61d2c0c0\$630a0d0a@doug.dpol.k12.ca.us>

MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Jim, NO Way will I ever sell my Long Island Mercuries!!! The problem was mine, I forgot to tighten the nut. The LIMP is WONDERFUL, buy one, you'll be glad you did. 72, doug

>HI Doug: I've been following your quasi thread re the LIMP. Wonder if  
>you've changed your mind,re the paddles ....

-----

Date: Tue, 05 Oct 1999 10:08:24 -0600  
From: tom whalen <wb5qyt@eFortress.com>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [52269] ARS SP de WB5QYT  
Message-ID: <37FA2278.2162@eFortress.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Gang,

Sure was fun last night working the ARS Sprint. This is the second time I have had the chance to work this sprint railroad mobile. First time was only on 40 meters and last night I used 20. Sure were a bunch of familiar calls out there...

KI6DS...good sig on your new antler Doug....OK on the Spudnut HI HI!

WE6W....Ed, I don't think you were using the bug...Good sigs here

AA7QU...  
N6KR.... Must have been on his K2.  
W8SFF...  
AL7FS...Jim, weak but readable

Rig: DSW-20 @ 2 watts  
Ant: 1/4 wave sloper, mag mounted off side of locomotive

Batt: 4 amh gel  
Key: homebrew

Was a blast, see ya all next month!

72, Tom WB5QYT/RRM ...."Have spud will travel!"

-----

Date: Tue, 5 Oct 1999 12:05:18 -0500  
From: "Kevin Muenzler WB5RUE" <wb5rue@stic.net>  
To: <kdljv@moose.ncia.net>, "'Low Power Amateur Radio Discussion'" <qrp-1@Lehigh.EDU>  
Subject: [52270] RE: Recommendations for 10 meter mag mount  
Message-ID: <000001bf0f53\$cdf8f390\$ef5d6f81@uthscsa.edu>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I used the Radio Shack "Super Magnet Mount" antenna for about 10 years until I hit a tree branch going about 40 MPH and broke the coil. I think I paid about \$50 for it.

> -----Original Message-----  
> From: owner-qrp-1@Lehigh.EDU  
> [mailto:owner-qrp-1@Lehigh.EDU]On Behalf Of  
> Steven Weber  
> Sent: Tuesday, October 05, 1999 6:23 AM  
> To: Low Power Amateur Radio Discussion  
> Subject: Re: Recommendations for 10 meter mag mount  
>  
>  
> > I had a Radio Shack CB antenna cut for 10 meters  
> > and it just did not cut the mustard. Limited use and  
> > now looks like the coil is shorted or broken. Can anyone  
>  
> John,  
>  
> Those RS mag mounts don't seem to last long for some reason. The  
> coax should measure shorted with an ohm meter. The coax is connected  
> across the coil, tapped a few turns from the bottom and the whip is  
> connected to the top of the coil. So, you should measure continuity  
> across the coax, from the center to shield and to the whip.  
>  
> A big problem around here is durring the winter is the salt and  
> slush on the road gets into where the loading coil screws into the  
> base and gets corroded, or gets into the coil assembly it's self.  
>  
> Another common problem is simply a poorly crimped on coax connector.  
>  
> Don't know what to recommend as a replacement. An old 102" whip would  
> be best, but probably not practical..

>  
> 72,  
> Steve, KD1JV in the white Mountains of New Hampshire  
> "melt solder"  
>

-----  
Date: 05 Oct 1999 13:07:22 -0400  
From: Glen Leinweber <leinwebe@mcmail.cis.McMaster.CA>  
To: w6toy@erols.com, qrp-l;;  
Subject: [52271] Re: Tuna Tin 2 pi output ckt  
Message-ID: <1999Oct05.130722-0400@[130.113.234.7]>

Dave and Bruce are simulating the PI output filter of the TT-2 with circuit simulators to try to get a measure of harmonic attenuation. This is a useful exercise, but don't count on the results to prove FCC compliance....

One BIG problem is that these frequency response plots assume a LINEAR system, with sinewaves going into the filter, and sinewaves coming out. A transistor final amp is anything BUT linear, and the input waveform is certainly not a sinewave.

In the elmer101 discussion on the final amp, i simulated the output stage as a SPST switch. This must be done (in PSPICE) in the TRANSIENT mode, rather than AC mode. Results come out similar to an oscilloscope display, with time on the x-axis. This mode properly handles non-linear situations.

The minimum parts required for this simulation involve the PI filter elements, a dummy load resistor of 50 ohms, the collector choke (or collector transformer), the 12V (or 9v) DC supply, the coupling capacitor feeding the PI filter and a SPST switch simulating the collector-to-emitter connection of the output transistor. You should turn this switch ON and OFF at a rate of 7.040 MHz, with ON time roughly equal to OFF time. Results will vary with this ratio. You should end up with a sine-wavish waveform across load resistor. Running this waveform thru a FFT function will give some idea of harmonic suppression.

-----  
Date: Tue, 5 Oct 1999 13:10:17 -0400  
From: "Tom Hybiske" <hybiske@generalatronics.com>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [52272] Re: Recommendations for 10 meter mag mount  
Message-ID: <00be01bf0f54\$7fc43da0\$8c68f326@generalatronics.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Hi John,

I use the Larson product, and am very satisfied with the performance. I have settled on the NMO type mount for all my coils. On my personal vehicle, I punched a 3/4" hole in the roof, and have it directly mounted. When we use the wife's car, I use a mag mount which accepts the NMO type coils. I also have a rain cap to protect the mounts when not in use. The mag mount holds down the 10M coil & whip with no problems, but there is definitely a drop in performance when compared to the direct mount.

7 3, Tom K3GM

> > I had a Radio Shack CB antenna cut for 10 meters  
> > and it just did not cut the mustard. Limited use and  
> > now looks like the coil is shorted or broken. Can anyone  
> > recommend a good 10 meter mag mount that is pretty  
> > durable? I've had Larsen and Antennx (sp?) mentioned  
> > but do not have any experience with either. Any  
> > comments appreciated.  
> >  
> > 72, John NU0V  
>  
>

-----  
Date: Tue, 5 Oct 99 10:13:53 -0800  
From: Anthony Felino <anthony@pacinfosb.com>  
To: qrp-1@lehigh.edu  
Subject: [52273] variometers  
Message-ID: <Chameleon.939143823.anthony@anthony>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Dave Hinerman WD8CIV wrote:

"I was under the impression that a variometer was used to vary the amount of coupling between the two coils, not necessarily the inductance. If I'm wrong, I hope someone will set me straight. It may be a useful thing to have, if so."

Fortunately, you are wrong here. A variometer is a variable coupling arrangement with the movable coil hooked up in series with the fixed coil. This gives a variable inductance. It was used, and can be used, as the variable element in tuned circuits for oscillators, etc. Many early radios were variometer tuned, but capacitors were cheaper to make variable, so they won out.

Alan KB7MBI wrote:

"In reviewing information on some crystal radios several months ago I noticed the use of the VARIOMETER in lieu of rotory or tapped inductor. ( A VARIOMETER is , well think of a short cylindrical coil of wire that can turn on an axis inside another cylindrical coil that is fixed).

It appears that this could be used as a balun arrangement that was variable. Or is the balun a bit more complicated than that?

ANTENNA TUNER: Could the VARIOMETER be employed as a variable inductor in an antenna tuner arrangement?"

I'm not sure what you had in mind as far as the variable balun. If you mean to somehow vary the impedance ratio you may be barking up the wrong tree. However, your idea about using it as the variable L in an antenna tuner is a good one. People just don't seem to like making mechanical arrangements like that. I do, though.

73,  
WN6Q

-----  
Anthony Felino, Pacific Information Design  
email: anthony@pacinfosb.com, afelino@eng.delcoelect.com  
telephone: (805) 730 1565, x25  
fax: (805) 730 1569  
-----

-----  
Date: Tue, 5 Oct 1999 13:39:51 -0400  
From: "Mike Yetsko" <myetsko@insydesw.com>

To: <hybiske@generalatronics.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [52274] Re: Recommendations for 10 meter mag mount

Message-ID: <00b401bf0f58\$ef285600\$9001a8c0@wn.net>

MIME-Version: 1.0

Content-Type: text/plain;  
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

> Hi John,

>

> I use the Larson product, and am very satisfied with the performance.  
I

> have settled on the NMO type mount for all my coils. On my personal  
> vehicle, I punched a 3/4" hole in the roof, and have it directly  
mounted.

> When we use the wife's car, I use a mag mount which accepts the NMO  
type

> coils. I also have a rain cap to protect the mounts when not in use.  
The

> mag mount holds down the 10M coil & whip with no problems, but there  
is

> definitely a drop in performance when compared to the direct mount.

>

> 7 3, Tom K3GM

I don't want to sound like this is a Larson flame, but be careful. I  
have a

Larson, and it works very well. The KulRod for 2M.

However, just know what your getting.

For example, the Larson whips come chrome or colored. The colored  
whips are in a variety of colors, and besides looking better (in my  
opinion) they are much better long term performers. The chrome  
whips are EXTREMELY THIN stainless steel. As such, they have  
a low wind load, but they bend back so far in the wind as to distort  
the pattern immensely. I find my Diamond dualband antenna (which is  
a 1/2 wave on 2M) does a better job than the Larson 5/8. But the  
penalty is a HUGE wind load. And that brings up another sore point  
with me I'll do last.

The Larson chrome whips by the way are actually multi-layered. Since  
Larson is not happy with the radiational performance of the hard  
stainless steel they use, it's coated with multiple layers of material.  
Copper, chrome, etc. The result is the chrome is only the OUTSIDE  
layer. Well, with all the flexing and banging, cracks are sure to

appear,  
and sure enough, the outside layer will start to be corroded under.  
I can show you THREE Larson whips that lasted about 3 New England  
winters before they were pocked and corroded. I thought the coil  
must be bad, so I bought another, and another. Turned out it was  
the actual whip!! But the good point is the whips are relatively cheap  
(but you can't just buy a whip at RS, Larson is much thinner!) and  
you can just buy the 'colored' whip, which appears to last much longer.  
Must be something in the salt in the winter up here in MASS. Car  
radiators go quick in New England too.

OK, the wind load factor. I have a Larson Mag base for NMO. It is  
the WEAKEST excuse for a magnet I've ever seen on an antenna. In  
fact, my Larson stud mount is much stronger. I don't know if I got a  
defective one or what, but it blew off my Intrepid so many times and  
put dings in the door I was sick of it. That's why I changed to the  
Diamond on a front trunk edge mount.

I now use the Larson 5/8 with the Mag NMO base on my Jeep. But I  
gutted the base and put in two magnets from Radio Shack. I made  
end plates for the magnets by buying 'brackets' that were 3/32" strap  
at the hardware store and cutting them to fit. I had carefully peeled  
back the base foil on the Larson, and 'taped' it back to fit. Then to  
finally finish up, I used a single layer of WIDE packing tape over the  
foil. The base looks factory once I put the trim back on, and it  
holds much better.

Do I like the Larson? Some of their antennas I think are the best  
around. But just be aware of what you are buying and how it may  
interact with your use. I will NEVER buy another Larson Mag base,  
or a chrome whip. But I love their overall 5/8 whips for 2M, and in  
HTs I don't think you can find a better antenna than the KulDuckey  
(the thing that looks like a BNC with 4" of RG-8 then about 8" of  
RG-58, all under one big shrink wrap).

Mike Yetsko  
N1DVJ

-----  
Date: Tue, 05 Oct 1999 13:45:06 -0400  
From: James Owen <james.owen@nist.gov>  
To: dlh1009@ritvax.isc.rit.edu, qrp-1@lehigh.edu  
Subject: [52275] Re: Static...a few facts to think on.  
Message-ID: <37FA3922.E960536D@nist.gov>  
Mime-Version: 1.0



Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

David Hinerman wrote:

> Jim,  
>  
> Can you tell us what line widths today's common (i.e.  
> hobbyist-available) analog and digital components use?

Dave that's a little hard to answer. Many of the chips we use today such as the 74xx line the 602's etc use fairly large widths (1-5 mm) (small when designed) and the power devices should be very large lines maybe 10-20 micrometers. Only the latest chips, mostly the computer micro's and control chips, use the very small lines. 0.18 mm will be the smallest you find today and then mostly in micro's. However we very fast are heading toward 10 nanometer's.

However, we're getting too upset by the static possiblity. Most of us that build are not using any devices that will be damaged by normal handling. The Tuna Tin II doesn't have anything easily damaged, nor do most of the current kits. Of course you don't want to pickup a 2n2222 hold one lead in your hand, walk across the room and discharge yourself through one of the other leads. The only devices that most of us use that require a little caution are CMOS chips and the IG (insulated gate) FET's. If you do a lot of work with them get a static mat and use a wrist strap to ground yourself to the mat. However in 30+ years of handling them, many times without any mat or grounding I don't know of ANY I have blown.

72

Jim K4CGY  
qrp-1 #72

-----  
Date: Tue, 05 Oct 1999 10:58:40 -0700  
From: Ed Loranger <we6w@qsl.net>  
To: qrp-1@lehigh.edu  
Subject: [52276] Re: Spartan Sprint de AL7FS  
Message-ID: <37FA3C50.5657BE6F@qsl.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Great Report, Jim! And a real pleasure to work you from AK. Shannon (xyl) gets a kick out of all the stations and geographic locations that we can work with QRP. She was at my side during the whole test. Afterwards she learned a couple of letters on the paddle! Getting closer to a 3rd ham in the family here....

Setup here was the K2 at 5 watts from the 7AH gel cell (Overkill but then these are for fun...) Norcal paddles and Iambic mode "b" on the K2. ZM-2 ATU, 300 Feeline running under the "Cat door" out the back of the shack up to a PVC pipe strain relief and up to the full-wave, 40 M band, diamond shaped loop.

The 5 watts netted me 24 Q's on 20 M and 23 Q's on 40 Meters.

What fun! It was also great to snag Dean from HI on both 20 and 40. KH6B in the log again. Young Ben/NW7DX was pounding in. Good ol' Earl/VE6EWM has caught some good path to CA again. Nice Signal, Earl.

It was a pleasure to work all of you, wish I had time to list y'all here. It was a blast to really get that Iambic paddle engrained in my motor-reflex response by using it during the contest. Darn near switched to the bug for the second hour but was having too much fun using the paddle this time.

The bug is still #1 with me though but fun to send on the paddle too :)

Next, cootie bug training.....

72/  
Ed WE6W

--

-Ed AR Millennium Q's=>1200/2000 QRP-L#1068 Old NC#2227  
72, Ed WE6W, A-1 OP; <http://www.qsl.net/we6w> Santa Rosa, CA  
QRP-Z#106 AR#112 HI-QRP#64 ARCI#9397 ARS#275

-----  
Date: Tue, 5 Oct 1999 10:58:26 -0700  
From: Dave Barrett <DBarrett@creo.com>  
To: "'james.owen@nist.gov'" <james.owen@nist.gov>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [52277] RE: Static...a few facts to think on.  
Message-ID: <CE0A40BFE0CDD111A2B800A0C99B83EB02618E0D@msgcreo2.creo.bc.ca>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"

James

I think you hit the nail on the head when you said "I don't know of any I have damaged"

The reason for the original posting was that we as Hams are way too over confident about static and the general rule seems to be if we cannot see it and there is no feeling it must be OK. Not so, we do not feel the static until levels come close to 10Kv as our skin puncture / feeling threshold starts around 10Kv, in other words we are being way to complacent / careless around all modern components.  
By the way, these are currently accepted industry standards.

Just a few thoughts to save us all many hours of wasted time fault finding on our latest projects....static is indeed the culprit for many of our "Didn't work first time" problems

Dave

-----Original Message-----

From: James Owen [mailto:james.owen@nist.gov]  
Sent: Tuesday, 05 October, 1999 10:45 AM  
To: Low Power Amateur Radio Discussion  
Subject: Re: Static...a few facts to think on.

David Hinerman wrote:

> Jim,  
>  
> Can you tell us what line widths today's common (i.e.  
> hobbyist-available) analog and digital components use?

Dave that's a little hard to answer. Many of the chips we use today such as the 74xx line the 602's etc use fairly large widths (1-5 mm) (small when designed) and the power devices should be very large lines maybe 10-20 micrometers. Only the latest chips, mostly the computer micro's and control chips, use the very small lines. 0.18 mm will be the smallest you find today and then mostly in micro's. However we very fast are heading toward 10 nanometer's.

However, we're getting too upset by the static possibility. Most of us

that build are not using any devices that will be damaged by normal handling. The Tuna Tin II doesn't have anything easily damaged, nor do most of the current kits. Of course you don't want to pickup a 2n2222 hold one lead in your hand, walk across the room and discharge yourself through one of the other leads. The only devices that most of us use that require a little caution are CMOS chips and the IG (insulated gate) FET's. If you do a lot of work with them get a static mat and use a wrist strap to ground yourself to the mat. However in 30+ years of handling them, many times without any mat or grounding I don't know of ANY I have blown.

72

Jim K4CGY  
qrp-1 #72

-----  
Date: Tue, 5 Oct 1999 14:06:32 -0400  
From: wd4et@juno.com  
To: james.owen@nist.gov  
Cc: qrp-1@Lehigh.EDU  
Subject: [52278] Re: Static...a few facts to think on.  
Message-ID: <19991005.140636.-223969.1.wd4et@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

Hi James,

I really enjoyed your post regarding fabrication and measurement methods.

I had a professor in the early 70s that had been an engineer with Bourne Electronics when they were developing their first ICs. His task was to connect the "chip" to the outside world. They used a laser to weld small gold wires from the chip to the package. He had photomicrographs of the process. The sixties are now the stone age. :)

73, Jeff WD4ET

-----  
Date: Tue, 05 Oct 1999 14:06:41 -0400  
From: James Owen <james.owen@nist.gov>  
To: qrp-1@lehigh.edu  
Subject: [52279] Re: Static...a few facts to think on.  
Message-ID: <37FA3E31.335179A2@nist.gov>  
Mime-Version: 1.0

Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Dave Barrett wrote:

>  
> James  
> I think you hit the nail on the head when you said "I don't know of any  
> I have damaged"  
>  
> we as Hams are way too over  
> confident about static and the general rule seems to be if we cannot see it  
> and there is no feeling it must be OK.

You are of course right Dave. We shouldn't get so lax that we don't take any precautions. What I was trying to say and did it very poorly was. We shouldn't be so concerned about static that we WON'T build anything for the fear of damaging the SS devices. It takes just a little caution to be sure that we are not charged up.

73 Jim K4CGY

-----  
Date: Tue, 05 Oct 1999 13:18:03 -0500  
From: "John Burnley" <JBurnley@ifmc.org>  
To: <qrp-1@lehigh.edu>  
Subject: [52280] Thanks to all who responded.  
Message-ID: <s7f9fa90.018@ifmc.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: quoted-printable  
Content-Disposition: inline

Many thanks to all who responded to my question on  
10 meter mag mouning antennas!

72, John NU0V

-----  
Date: Tue, 5 Oct 1999 14:39:53 -0400 (EDT)  
From: Joel Malman <malman@world.std.com>  
To: qrp-1@Lehigh.EDU  
Cc: k1qm@world.std.com  
Subject: [52281] Monday SP

Message-ID: <199910051839.OAA03290@world.std.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=US-ASCII

Content-Transfer-Encoding: 7bit

Wow! That was fun! Best DX was working CA and AZ (AB7MY) on 40 meters, from here in MA. Worked lots of well known QRP-L folks. Last QSO of the event: KI6DS. Neat. 40m QSO's = 19, 20m QSO's = 8 !! See everyone in next months SP (November 1, I think).

Hope to hear a lot of you on the air again tonight is the 'Pre Fox' Fest. 0000-0400z ... exch: RST/SPC/Name/QRP-L-NUM ... have lots of fun.

Love this QRP stuff...

--

/joel K1QM (Ex-wa1qvm) Concord, Massachusetts  
QRP-L 337, QRP-ARCI 9305, MI-QRP 1641, NorCal #1884

-----  
Date: Tue, 05 Oct 1999 14:50:43 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-l <qrp-l@lehigh.edu>  
Subject: [52282] Re: variometers  
Message-ID: <37FA4883.65F30F6C@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

Anthony Felino wrote:

>

> Dave Hinerman WD8CIV wrote:

>

> "I was under the impression that a variometer was used to vary the amount  
> of coupling between the two coils, not necessarily the inductance. If  
> I'm wrong, I hope someone will set me straight. It may be a useful thing  
> to have, if so."

>

> Fortunately, you are wrong here. A variometer is a variable coupling arrangement  
> with the movable coil hooked up in series with the fixed coil. This gives  
> a variable inductance. It was used, and can be used, as the variable element  
> in tuned circuits for oscillators, etc. Many early radios were variometer  
> tuned, but capacitors were cheaper to make variable, so they won out.

>

> Alan KB7MBI wrote:

>

> "In reviewing information on some crystal radios several months ago I notice

> the use of the VARIOMETER in lieu of rotory or tapped inductor. ( A  
> VARIOMETER is , well think of a short cylindrical coil of wire that can turn  
> on an axis inside another cylindrical coil that is fixed).  
>  
> It appears that this could be used as a balun arrangement that was variable.  
> Or is the balun a bit more complicated than that?  
>  
> ANTENNA TUNER: Could the VARIOMETER be employed as a variable inductor in an  
> antenna tuner arrangement?"  
>  
> I'm not sure what you had in mind as far as the variable balun. If you mean to  
> somehow vary the impedance ratio you may be barking up the wrong tree.  
> However, your idea about using it as the variable L in an antenna tuner is  
> a good one. People just don't seem to like making mechanical arrangements  
> like that. I do, though.

Anthony,

I could see a variometer possibly being too unstable mechanically to be  
used in a VFO, but if the range of inductance is suitable, I'd think it  
would be fine for a tuner.

Have you built a variometer? Would you care to post some details if so?  
Thanks!

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----  
Date: Tue, 05 Oct 1999 14:57:37 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-l <qrp-l@lehigh.edu>  
Subject: [52283] Re: Static...a few facts to think on.  
Message-ID: <37FA4A21.B622A210@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

James Owen wrote:

> > Can you tell us what line widths today's common (i.e.  
> > hobbyist-available) analog and digital components use?  
>  
> Dave that's a little hard to answer. Many of the chips we use today such

> as the 74xx line the 602's etc use fairly large widths (1-5 mm) (small  
> when designed) and the power devices should be very large lines maybe  
> 10-20 micrometers. Only the latest chips, mostly the computer micro's  
> and control chips, use the very small lines. 0.18 mm will be the  
> smallest you find today and then mostly in micro's. However we very fast  
> are heading toward 10 nanometer's.

>

> However, we're getting too upset by the static possiblity. Most of us  
> that build are not using any devices that will be damaged by normal  
> handling. The Tuna Tin II doesn't have anything easily damaged, nor do  
> most of the current kits. Of course you don't want to pickup a 2n2222  
> hold one lead in your hand, walk across the room and discharge yourself  
> through one of the other leads. The only devices that most of us use  
> that require a little caution are CMOS chips and the IG (insulated gate)  
> FET's. If you do a lot of work with them get a static mat and use a  
> wrist strap to ground yourself to the mat. However in 30+ years of  
> handling them, many times without any mat or grounding I don't know of  
> ANY I have blown.

Jim,

I've actually damaged more chips by dropping them than with ESD. (I  
-did- pick up an EPROM once and drew a spectacular arc from it. It was  
toast afterwards, too.) But I've found static to be a nuisance (or  
worse) on operating equipment, too - a zap on the knob of a  
micro-controlled radio was enough to confuse it to the point that it  
wouldn't respond to any controls. Fortunately it could be cleared by  
turning it off and back on.

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----

Date: Tue, 05 Oct 1999 11:59:07 -0700  
From: Ed Loranger <we6w@qsl.net>  
To: qrp-l@lehigh.edu  
Subject: [52284] Island Keyer Project Summary.  
Message-ID: <37FA4A7B.6D8BDA9F@qsl.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Gang, some time ago I started on the



Island Keyer for a fellow ham. I built the circuit in one evening and the original plan was to let the owner do the box. So I built it on PCB material and got on the air. It worked great.

Months later I finally got done with the QTH Move and getting my mom healthy again. After unpacking all my gear at the new qth I found my list of project had grown. So I quickly dispatched a few Pixie and Tixie test/repair projects, a RF Probe and a K2 kit and got to the Keyer project this weekend.

Of note was my call to a panel layout awhile back. My final design was: (Referenced from viewing the package from the front.

Rear Panel: Middle Left --> Output to Rig.  
Lower Right --> INPUT: handkey  
Upper Right --> Input: Paddle

Top Panel : Left center --> Speaker  
Right Rear ---> Reset  
Right Middle -> Speed; Record Switches.  
right front --> Memory switches 1-4

Front Panel: Left center --> Volume On/off  
Top Center ---> Callsign of owner  
Right Center -> Speed control.

Cosmetics: Created rear panel from PCB stock with bottom edge of 3/8 inch wide PCB for screw/nut fastener. A divider of PCB material runs vertically inside the rear wall and has two small channels for running wires. Also the divider helps hold the 3 "AA" battery internally just under the 'rig' output connector and touching the vertical support wall.

Painted with Oil Gloss Black Enamel for the walls, Red Gloss Enamel for the callsign and Record label, and acrylic Snow white lettering for the remaining pushbutton switches and rear panel identifiers.

It is very pretty :)

Except for the back wall that I designed, the remaining walls are a ferrous/aluminum mix used in a LAN modem of some type. I hacksawed the thing and filed it square.

All holes were punched with the 7 die Harbor Freight metal hand punch I got years ago. The speaker holes were the most exciting to do...

Operation: I am truly amazed and how much memory is available. If you load up number 3 memory with a long dissertation of what you did to the kit, so the owner can get some tips, you will find the keyer will automatically continue to the next memory location. So half of my message to my friend is in mem#4. Neat.

The keyer is Iambic but I found one must load the memory non-iambically, or get a series of dits whenever both paddles are used together, like the letter C, or AR prosign etc. It was not a problem, just a feature. I assume the character completion circuit is inoperative while loading memory.

Overall, the smallest I could make this, considering it has a speaker, 7 pushbuttons, 2 input jacks, 1 output jack, 3 "AA" battery holder and 2 potentiometers, the smallest package I could get was about 4" by 2.5" by 2".

With internal battery and 1 uA drain, there is no off switch. For the external (optional, not supplied) 7-12 Volt connector, the on-off switch is wired in.

There is lots of room to set QRS but above 25 WPM the pot has a larger affect. The "Speed" annunciator button allows you to hear your speed setting.

I found his Island keyer fun to use, very elegant in appearance on the shelf with all them buttons, and easy to use. The final layout of the buttons on top was to allow full pressure switch actuation, downward, without pushing the little box around, as would happen with front panel switches. I found at times I had to push harder on a switch to actuated it. Perhaps that is just oxide build up from sitting around and will disappear with use, a feature of slide switches.

I put the volume control at the left since most gear is set up that way.

Upgrades? I'd forego the inexpensive push switches and find some high quality microswitches with million-cycle duty rating.

Other than that, it is perfect for practice or running the rig.

Disclaimer: This is neither an endorsement or advertisement for this keyer. Simply my report on building and using it. No connections with the company, financial interest or whatever...

72/Ed we6w

--

-Ed AR Millennium Q's=>1200/2000 QRP-L#1068 Old NC#2227  
72, Ed WE6W, A-1 OP; <http://www.qsl.net/we6w> Santa Rosa, CA  
QRP-Z#106 AR#112 HI-QRP#64 ARCI#9397 ARS#275

-----  
Date: Tue, 5 Oct 1999 15:01:06 -0400  
From: "dor" <elbc@pivot.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [52285] zMATCH  
Message-ID: <005b01bf0f63\$fba2e980\$2c11a1d0@mine1>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I know some of you don't like postings about EBAY Item.. This is not my item but thought someone on here might like to see this one  
It's an Original Harvey Wells Z-Match Closeing in four hours or so..  
Harvey wells was one of the only commercial manufactuers of a real Z-Match tuner back in the 50's & 60's

-----  
Date: Tue, 5 Oct 1999 15:02:21 -0400  
From: "dor" <elbc@pivot.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [52286] zmatch  
Message-ID: <006301bf0f64\$278a8940\$2c11a1d0@mine1>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Oh forgot to include the URL in last post

<http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=172371686>

-----  
Date: Tue, 5 Oct 1999 14:48:38 -0500  
From: Guy Dragoo <GDRAG@proedge.com>  
To: "'Low Power Amateur Radio Discussion'" <qrp-1@Lehigh.EDU>  
Subject: [52287] Square sheet metal punch source  
Message-ID: <B13A99FB1E2FD311816D00805FBB10B66C50@www.premiumware.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"

> I am looking for a reasonable priced source for square punch(s) for some  
> chassis work. Does anyone know of any?  
> 73  
> Guy AC5HL

-----  
Date: Tue, 05 Oct 1999 15:02:27 -0500  
From: "Ed Manuel (N5EM)" <n5em@flash.net>  
To: qrp-1@lehigh.edu  
Subject: [52288] AZ ScQRPions Meeting??  
Message-ID: <4.1.19991005150037.00a2b780@pop.flash.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Well, HEY.

I'm gonna be in Phoenix - in November - on Saturday the 7th. And it won't  
be hot enough to melt lead! Any chance that coincides with a ScQRPions  
meeting???

Ed Manuel, N5EM  
Houston QRP Club

-----  
Date: Tue, 05 Oct 1999 15:10:13 -0500  
From: K10J <k10j@ditdit.com>  
To: QRP-L Discussion <qrp-1@Lehigh.EDU>, NARS <nars@onelist.com>  
Subject: [52289] FS: Ten Tec MD# 305 Level Converter  
Message-ID: <000701bf0f6d\$a2444be0\$3cb83ed8@swbell.net>

MIME-version: 1.0  
Content-type: text/plain; charset="iso-8859-1"  
Content-transfer-encoding: 7bit

Howdy...

For sale: Model 305 Level Converter for Ten Tec rigs. Paint chips around edges of case. Works great with my Omnis. \$40 shipped to lower 48.

OJ---K10J

dit dit

..

-----  
Date: Tue, 5 Oct 1999 15:42:41 -0400  
From: "wayne reed" <wlreed@custom.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [52290] psk31  
Message-ID: <00cd01bf0f69\$ea322200\$784961ce@q7c8d5>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Gang,

Finally on THE mode [other than CW] for QRP. I wonder if you have tried this:

I picked the center of my cw filter by turning on the filter and cranking up the audio [receive] and centering the receive frequency [water fall display] on the noise [white]. Now I don't have to do mental gymnastics about USB, LSB and did the filter track with the USB/LSB switch??

You probably already thought of that.

Now, I just need to find out where all these guys are hanging out.

Wayne, k9ne

wlreed@custom.net

-----  
Date: Tue, 5 Oct 1999 16:55:53 -0400  
From: "Ken & Linda Burrough" <w8keb@1st.net>  
To: "QRP-L" <qrp-l@Lehigh.EDU>  
Subject: [52291] New Call and E-mail Address  
Message-ID: <010501bf0f74\$11788fc0\$9706f0d1@ne0c.1st.net>

Hi All

I have a new vanity call and e-mail address. its W8KEB and e-mail now is w8keb@1st.net

Thanks

KEN--W8KEB  
Ex--ka2hjy, n6evc, kc0wn and ne0c  
Flushing, Ohio  
w8keb@1st.net

-----  
Date: Tue, 5 Oct 1999 13:41:19 -0700  
From: sigcom@juno.com  
To: qrp-1@Lehigh.EDU  
Subject: [52292] TT-2 Output network  
Message-ID: <19991005.135159.-329009.1.sigcom@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

After several tests and a lot of reading, I think I can state with some certainty that the output network on the TT-2 doesn't have enough attenuation to bring the rig into compliance with FCC regulations. I really would like to compare measurements with others out there. With the stock 3 pole network, I can't bring the 2nd harmonic lower than -10 db and the 3rd lower than -20. Since the FCC requires a minimum of -30 db for transmitters of 5 Watts or less, I can't legally put this rig on the air. I'm going to build a 5 pole filter for it. I'm sure that will do the trick.

If Ed Hare is reading this, I'd like to know what you're doing to suppress the harmonics on the original. Doug DeMaw said that the output network, being a low pass filter, would attenuate the harmonics. I wonder if he every actually measured it. Of course, that was 1976. You could put almost anything on the air then. I know, I did :-).

If someone has brought the TT-2 into compliance using the 3 pole output filter, I'd sure like to know what the measurements are and how you did it.

73.....Steve  
-----

Get the Internet just the way you want it.  
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Try Juno Web: <http://dl.www.juno.com/dynoget/tagj>.

-----  
Date: Tue, 05 Oct 1999 15:56:31 -0500  
From: "George T. Baker" <w5yr@swbell.net>  
To: leinwebe@mcmail.cis.McMaster.CA  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [52293] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37FA65FF.4530CD59@swbell.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7bit

Glen, you have my curiosity aroused . . . seemingly a linear system does not appear to obey the laws of superposition.

The network IS a linear system without regard to what is exciting it.

The network IS being fed by a sine wave signal - by a large number of them all at the same time, in fact; i.e., the pulse signal from the amplifier stage.

The network will have a linear response to each of the constituent sine waves at its input. The network output will be determined by the amplitude and phase of each constituent input sine wave and by the network response at that frequency.

The output of the network as a function of each of the input sinewaves is the response function being sought.

It is a very common analysis tool to "excite" a linear system with an impulse function in order to determine its time-domain response. And by means of Laplace or Fourier transforms, one may then deduce the frequency response function and, in the matter at hand, the harmonic attenuation of the network. In fact, this approach lies at the cornerstone of linear network theory and analysis.

After all, by definition the network is linear - even if its source is not - and thus superposition applies.

I find it hard to believe that the pulse-like waveform being applied to the network in question would in any way invalidate a normal frequency-response analysis of that network to the end of determining its harmonic attenuation.

I guess that I am missing some pretty fundamental stuff here. Bruce, what do you think?

72/73, George                    AMA 98452                    R/C since 1964

Amateur Radio W5YR, in the 54th year and it just keeps getting better!  
AutoPOWER Systems, Fairview, TX (30 mi NE Dallas) Collin County  
QRP-L QRP-ARCI FISTS NORCAL ZOMBIE ARS 10-X 33.2 N 96.6 W EM13RE

Glen Leinweber wrote:

>  
> Dave and Bruce are simulating the PI output filter  
> of the TT-2 with circuit simulators to try to get  
> a measure of harmonic attenuation.

>            One BIG problem is that these frequency  
> response plots assume a LINEAR system, with  
> sinewaves going into the filter, and sinewaves  
> coming out. A transistor final amp is anything  
> BUT linear, and the input waveform is certainly  
> not a sinewave.

-----  
Date: Tue, 5 Oct 1999 14:16:01 -0700  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: <qrp-l@lehigh.edu>  
Subject: [52294] QRP-PCON Speaker #3  
Message-ID: <01bf0f76\$d407c5e0\$630a0d0a@doug.dpol.k12.ca.us>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Couldn't resist seeing if I could get by the filters, grin. I am in a great mood today and feel kind of onery.

The thing that made my day was the email that I got this morning from Jim Duffey, KK6MC, Dr. Megacycle to all of us on the list. Attached to it was his paper for the Pacificon QRP Forum Compendium. I started to read it, and immediately felt like I was walking down the street, looked down and found a \$100 bill!! (Never have done that but hope to some day) This article is full of information about antennas. Jim tells you how to build them, which ones to build, things that you need to watch out for, and where the problems occur. It is a complete antenna course for the beginner and the experienced ham too! Jim's writing style is what I call "plain talk, to the point, and easily understood". In otherwords, you will love it.



I think I first met Jim at Ft. Tuthill several years ago and immediately was impressed with his ability to convey a difficult subject into terms that I could grasp. The first talk that Jim gave was on receivers, and boy did I get an education that day. Jim works for Maxwell Industries as the resident Physics Guy. He does all kinds of neat stuff, none of which I understand, but he sure has a neat lab. He has been a regular contributor to qrp-l, and many of you will remember the very spirited debate several years ago between Jim and Cecil, W6RCA. Both were complete gentlemen, and it was fun and educational to watch the discourse. Jim also has been a speaker at Ft. Tuthill and his other claim to fame was being mistaken for Santa Clause by several small children in the Albuquerque mall a few years ago, but that is a story for another time.

Jim Duffey will be among 6 world class qrp speakers at the 1999 Pacificon QRP Forum sponsored by NorCal. He, along with Jim Kortge, Mike Gipe, Dick Pascoe, Paul Harden and Joe Everhart make up one of the strongest speaker lineups ever to appear on any QRP Forum. If you are sitting on the fence trying to decide whether or not to come, make the plunge and come on out and enjoy the event with us. Tons of things going on, free compendium to the attendees (we are printing 300 of them, and so far we have over 60 pages, with articles by all the speakers included.) Compendiums will not be available other than to the attendees. See you in Concord on Oct. 15, 16, & 17. 72, Doug, KI6DS

-----  
Date: Tue, 5 Oct 1999 17:05:43 -0400  
From: "Ken Simpson" <W8EK@fdt.net>  
To: "QRP List" <qrp-l@lehigh.edu>  
Subject: [52295] CW items FS  
Message-ID: <009301bf0f75\$66ef1cc0\$ad07fea9@kensimps>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I have a couple of CW items for sale:

Vibroplex Keyer Paddles - These are the standard paddles, chrome plated. Nice shape. Look almost like new. \$ 75

Nye Viking keyer - This keyer uses the Curtis 8043 chip, and has sidetone built in. Powered by either a 9 Volt battery, or wall wort DC supply (included). Will key either positive or negative voltages.

Nye Viking squeeze paddles built in to the unit.  
\$ 60

Nye Viking squeeze paddles. Same paddles as used  
in the keyer above, but this is just the paddles. \$ 35

Prices do not include shipping from Florida.

Thanks.

73,

Ken, W8EK

Ken Simpson  
E-Mail to W8EK@fdt.net or W8EK@juno.com  
Voice Phone (352) 732-8400

-----  
Date: Tue, 05 Oct 1999 14:08:07 -0700  
From: Allan G Taylor <k7gt@arrl.net>  
To: qrp-l@lehigh.edu  
Subject: [52296] R1ANF/A  
Message-ID: <37FA68B7.157F@arrl.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Did any QRP-ers work this one on 10m today? I heard quite a pileup on  
him. Is he antarctica or ?

K7GT

--

```

                                     |
                                   /|
                                 /  |
                               | /Z |\
      Allan Taylor  K7GT          /| /599| \      k7gt@arrl.net
Pleasanton CA  CM97aq        /_ | /____|__ \_  http://www.qsl.net/k7gt
...QRO, QRP, or barefoot..... [\-----/
~~~~~
```

-----  
Date: Tue, 05 Oct 1999 17:17:00 -0400  
From: David Hinerman <dlh1009@ritvax.isc.rit.edu>  
To: qrp-1 <qrp-1@lehigh.edu>  
Subject: [52297] Re: Tuna Tin 2 pi output ckt  
Message-ID: <37FA6ACC.A177D2D2@rit.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7BIT

"George T. Baker" wrote:

>  
> Glen, you have my curiosity aroused . . .seemingly a linear system does  
> not appear to obey the laws of superposition.  
>  
> The network IS a linear system without regard to what is exciting it.  
>  
> The network IS being fed by a sine wave signal - by a large number of  
> them all at the same time, in fact; i.e., the pulse signal from the  
> amplifier stage.

George,

I think Glen's issue is that "spurious output" and "attenuation at Nth harmonic" are NOT the same thing.

For a given network, the attenuation at the 2nd harmonic may be only 6db. But if that network is excited by a good square wave (which is an infinite series of odd harmonics, if I recall correctly) the spurious output at the 2nd harmonic will be zero. (I still haven't figured out how many "db down" that is. I can't count that high.)

> The output of the network as a function of each of the input sinewaves is  
> the response function being sought.

But the output of the total system (output network + excitation) is what the FCC hands out pink slips for. (Grin) I was doing linear simulation just because that's all I know how to do, and I was curious what kind of rolloff a simple pi network would have with the practical values that are being used. If the pi network had something like 40 db attenuation at the 2nd and higher harmonics, it wouldn't matter much WHAT the exciting waveform looked like. But if it's 6 db, more care is required to keep emissions within the required levels.

I'm grateful to you for pointing this out, however - I knew the simulation I was doing wasn't the whole answer, but I wasn't sure where to go next.

Dave

--

Dave Hinerman WD8CIV  
Ontario, NY Grid FN13IF  
dlh1009@rit.edu

-----  
Date: Tue, 5 Oct 1999 14:17:35 -0700  
From: "Kory Hamzeh" <kory@avatar.com>  
To: <qrp-l@lehigh.edu>  
Subject: [52298] First Homebrew Rig  
Message-ID: <007d01bf0f77\$0b535a00\$14ce21c7@tomcat.avatar.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

After I finish my K-2, I'd like to build my first homebrew rig from scratch. I was wondering what people here would recommend. I'm quite an experienced builder. I've looked at the 2n2/40, but it seems a bit of a compromise was made because only 2n2222's had to be used. The TT2/MRX-40 looks interesting, specially with the mods that Dave Fifield has made.

Any other suggestions will be greatly appreciated!

73,  
Kory  
AC6RN

-----  
Date: Tue, 5 Oct 1999 16:32:06 cdt  
From: wj50@juno.com  
To: TENTEN-L@LEHIGH.EDU, QRP-L@LEHIGH.EDU  
Subject: [52299] cycle 23 is here  
Message-ID: <19991005.163208.-969615.1.WJ50@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

Propagation continues good into South Texas today.

21:29 Z 5 Oct 99

Along with the 28 beacons logged earlier today -- 8 additional ones



Thanks,

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@dri.edu.....Washoe Lake, Nevada.....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----

Date: Tue, 5 Oct 1999 14:54:06 -0700 (PDT)  
From: Monte Stark <ku7y@dri.edu>  
To: Dave Barrett <DBarrett@creo.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [52301] RE: Static...a few facts to think on.  
Message-ID: <Pine.GSO.4.10.9910051433530.23098-100000@rotor.dri.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 5 Oct 1999, Dave Barrett wrote:

> ...static is indeed the culprit for many of our  
> "Didn't work first time" problems

Show me one of our QRP projects that has been killed  
by static.

Not a bunch of "Could have been" things, but something  
where static was the real killer.

Cap's, resistors and even tubes can be ruined by enough  
static but I would not want to be holding them when that  
much hit!

The common parts we use in our little QRP projects  
do NOT need all this worry.

The use of grounding straps and mats when using CMOS and  
some FET's will keep us going strong!

We have all seen static do funny things to data stored  
in memory that needed to be cleared before it worked right  
again but that's NOT damage to a device but rather the  
corruption of data. Big difference and again, not an issue  
with a TT2 and such.

If static dangers are so bad then why have so many of us never had any trouble?

And saying that we do have trouble and don't know it doesn't make any sense. When radios work to specs and continue working day in and day out I say there isn't any damage!

Over worry about static ranks right up there with worrying about SWR being over 2 to 1.

I have seen people who were afraid to get on the air because their SWR was 2 to 1 and there are those who are not building because they just know that they are going to damage all the parts and not even know it!

While static is a real issue in some places we are doing a major disservice to new hams that are just getting started.

Lets help them have fun and not cause needless worry!

OK, back into my hole!

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@dri.edu.....Washoe Lake, Nevada.....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

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Date: Tue, 5 Oct 1999 15:10:30 -0700  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: <kory@avatar.com>  
Cc: <qrp-l@lehigh.edu>  
Subject: [52302] First Homebrew Rig  
Message-ID: <01bf0f7e\$70354b20\$630a0d0a@doug.dpol.k12.ca.us>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Kory, first of all glad to see that you are feeling better. Anyone thinking about building has to feel better. Now for your question. I have seen both the 2N2/40 and the TT2/MRX highly modified rig by Dave Fifield. Here is my opinion. The 2N2/40 is light years better than the TT2/MRX combo as far as

performance goes. But I have a suggestion. Why don't you build the TT2/MRX Manhattan style to get the experience of building using Jim Kortge's building method. (for the IC's just make a big pad 3/4" x 3/4" and make a bisecting cut with a hacksaw through the copper, then turn your saw 90 degrees and make a bisecting cut in the other direction. Then bisect each pad one more time. A long way around saying cut into 8 pads. Then mount the IC to the pad, and glue to the board. Works great) When you get done with this rig, you'll be more than ready to build the 2N2/40, which is a dynamite rig. Check with Preston Douglas and some of the other builders for their opinions of the rig. IT IS THE REAL DEAL!! You'll learn a ton by building it, and when you finish, you will have a rig that you love to use!!

And that reminds me to remind all of the guys to be sure and enter their 2N2/40's in the NorCal building contest at Pacificon. We are giving away really nice plaques for the first 3 places. Plus, if any of you want to see the real original 2N2/40, it will be at Pacificon with its designer, Jim Kortge. You don't have to come to Pacificon to enter your rig in the contest. But, you do have to make arrangements to get it there and please do not ask Jim Cates or me to do this. We will say no, as we have enough to do already.

Ok Kory, sorry for the interruption. Let us know which project you choose, and we'll be anxious to hear how you come out. 72, Doug, KI6DS

-----  
Date: Tue, 05 Oct 1999 15:10:57 -0700  
From: Ed Loranger <we6w@qsl.net>  
To: qrp-l@lehigh.edu  
Subject: [52303] Projects;ESD;QRP-l;Spartan Sprint; Fox; SLX; Norcal Doublet?;  
Pacificon;Resonant Speakers  
Message-ID: <37FA7771.918BC0AC@qsl.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Anyone left to receive this?  
Har!

Hi Gang. On the Island keyer project, I forgot to mention I was delayed by two ZM-2's, and a GM-20 I had to build. Not to mention ..... Excuses!

Anyway, there seems to be a lot going on qrp-l. Neat.

ESD Is a HUGE problem. Heck, I gave dept. classes in proper ESD Safe practices way back in 1983. You



should see the electron microscopic images of 'Working' devices that had been ESD Damaged. Do you want these "Walking Wounded" functioning in your airplane?

I wear ESD compliant shoes, cotton clothing; use a grounded tip soldering Iron and my Sold-A-Pullit solder sucker is nikel plated. My worksurface is covered in a type of butcher paper when I work on projects. The natural fiber paper is an acceptable 'homebrewers' method of providing a safer worksurface down to a maximum of 100 Volts. The ESD field monitor has yet to find any voltage on that surface to measure. I replace the paper as I work on new projects. It is dangerous to use aluminum foil as a work surface, even if grounded thru a 1 MOhm resistance. A conductive surface like this can really bite you if you accidentally charge it from a power supply or have an improperly grounded 120V device touch your ESD "Safe"? surface. Stick with dissipative surfaces please.

Just read AM7MY's report. Darn, I always work Gary and wondered where he's been. The K2 has VERY strong rejection of the "OTHER" sideband. I tried to use the rit often last night and probably just missed you Gary. It is tough to zerobeat in contests so I made an effort to look higher in freq. when possible in case the brick-wall had gotten ya.

Tonights' pseudo fox test should be fun, hope to hear some of you out there. General contest exchange without the contest. Sound entertaining. Hopefully the storm outside will be forgiving from 0000-0400Z.

I was really impressed with some of the Antenna reports and the stirring up of activity regarding these ribbon-line feeds. It's all good for ham radio and I look forward to the reports and especially building more field-expedient antennas. Whatever happened to that contest we ran last year? You know the 1 hour to build an antenna in the field from 200 Feet of wire, then work the contest. That was fun.

Am really looking forward to Pacificon. Oh, I'm planning on bringing "Pieces" of the Resonant speaker project but don't expect any demos! I'll answer some questions and overall ragchew but after last January's Norcal meeting demo I think I'm all tapped out. I do plan to enter Phase IV of this project but at my own pace. I've already discovered there is no money in it :)

The big plan at P'con is to enjoy the seminars, sneak off and have lunch

with the xyl and a few friends, and just plain  
visit and absorb to retention, the comraderie to be  
evident at open house. That's the best part.

I'll be the one with very short hair, goatee, and my  
slender wife of 20 years, Shannon.

C-ya there! 72/Ed/Cueball haircut again....

--

-Ed AR Millennium Q's=>1200/2000 QRP-L#1068 Old NC#2227  
72, Ed WE6W, A-1 OP; <http://www.qsl.net/we6w> Santa Rosa, CA  
QRP-Z#106 AR#112 HI-QRP#64 ARCI#9397 ARS#275

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Date: Tue, 05 Oct 1999 15:21:32 -0700  
From: Eric Swartz WA6HHQ - Elecraft <erics@elecraft.com>  
To: QRP-L <qrp-l@lehigh.edu>  
Subject: [52304] Bigger Antenna for the Atomic Clocks?  
Message-ID: <37FA79EC.C2A84178@elecraft.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi,

I purchased a couple of the Atomic clocks from Rod, N0RC and have been pretty  
happy with their performance.

Out here on the left coast the signal from WWVB is not so strong. My Atomic  
Clocks can sync if I put them outside the house, but they fail inside. (Of  
course my shack is at ground level down the side of a hill...) And to top it  
off, when one of the clocks is set to GMT it tries to sync with WWVB at 0000Z  
(5 PM PDT). Not the best time for VLF propagation.

So that brings a question to mind. Why not put up a wire RX antenna to extend  
the range of the clocks receiver? A simple one might be a length of wire (say  
50 - 100') with one end wrapped around the clock's ferrite antenna. A more  
advanced one could be matched with a simple LC circuit and possibly amplified  
with a tuned pre-amp. That way I could run the clocks inside the shack all the  
time.

Anyone tried this? I think I'm about to.

72, Eric WA6HHQ

-----

Date: Tue, 05 Oct 1999 18:35:03 -0400 (EDT)  
From: Rich Mulvey <mulveyr@iname.com>  
To: qrp-1@lehigh.edu  
Subject: [52305] RE: ESD workstations  
Message-ID: <XFMail.991005183503.mulveyr@iname.com>  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 8bit  
MIME-Version: 1.0

On 05-Oct-99 Ed Loranger wrote:

> I wear ESD compliant shoes, cotton clothing; use a grounded  
> tip soldering Iron and my Sold-A-Pullit solder sucker is  
> nikel plated. My worksurface is covered in a type of  
> butcher paper when I work on projects. The natural fiber  
> paper is an acceptable 'homebrewers' method of providing  
> a safer worksurface down to a maximum of 100 Volts. The  
> ESD field monitor has yet to find any voltage on that surface  
> to measure. I replace the paper as I work on new projects.  
> It is dangerous to use aluminum foil as a work surface, even  
> if grounded thru a 1 MOhm resistance. A conductive surface  
> like this can really bite you if you accidentally charge it  
> from a power supply or have an improperly grounded 120V  
> device touch your ESD "Safe"? surface. Stick with  
> dissipative surfaces please.

I recently was in the market for a "hobby" bench for my wife, who has become interested in building model rockets. After looking at "new" workbenches, I called a local industrial liquidator and found him selling 10-foot long ESD workstations with locking drawers, etc. for \$60.00 each. Needless to say, I picked up a pair. Heck, the massive ground buss bars alone were probably worth what I paid for both workstations. :-)

Now, I just need to get a K2 to baptize \*my\* bench.

- Rich

-----  
Date: Tue, 05 Oct 1999 15:46:55 -0700  
From: Ed Loranger <we6w@qsl.net>  
To: qrp-1@lehigh.edu  
Subject: [52306] 10 MHz OCXO Trade: Final Chance.  
Message-ID: <37FA7FDE.808DA973@qsl.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Gang, this is my final note on this unheard of deal. I've already given away \$9000.00 in oscillators and these last 4 are on their way out in the hope that I may upgrade my testing facilities or Ham gear collection such that other tests can be performed.

I'm in severe need of a good complex impedance measuring device. The RF-1 isn't quite cutting it anymore and isn't as stable as I'd like. Not to mention that modeling at 200 MHz and above is impossible with it.

I asked that those who want one of these oscillators, valued at \$1000.00, consider their 'extra' gear for a trade.

So far I have some decent offers to consider. One might even go for a pile of 2N3904 transistors. All offers negotiable. But I really want to upgrade my testing or operating choices so I can contribute more to the hobby.

Your unused, fine quality machined straight key or bug. Exceptional paddles.

Mixtures of Kits. Set of Step Attenuators for weak signal work. Noise bridges with R and X measuring capabilities. New style RF sig gen up to 1 GHz. Battery operated, hand-held equipment preferred. Kits especially favored! Hey, how about my favorite? An HP8505A with S-paramater test set! Ok, that is pushing it.....

Here's the data on the oscillators which may be by Vectron or Wensel Associates spec'd at a MINIMUM of +/- 10 Hz coarse adjustment and +/- 1 Hertz fine adjustment electronically and a 24 Volt Oven at a nominal 150 mA and SC cut xtal oscillator running off 12Vots at 4 mA nominal.

SMB output port and solderable, feedthru capacitor bypassed voltage pins. The fine freq. adjustment is +/- 5 Volts for the minimum 1 Hertz adjustment ranges (Fine).

FINAL Decision THIS THURSDAY via EMAIL.

Thankyou and best of QRP operating to all.  
72/Ed we6w

--

-Ed AR Millennium Q's=>1200/2000 QRP-L#1068 Old NC#2227  
72, Ed WE6W, A-1 OP; <http://www.qsl.net/we6w> Santa Rosa, CA  
QRP-Z#106 AR#112 HI-QRP#64 ARCI#9397 ARS#275

-----  
Date: Tue, 05 Oct 1999 18:33:00 -0700  
From: Charles Kadesch <chas@digizen.net>  
To: qrp-l@lehigh.edu  
Subject: [52307] 10 meter DX report  
Message-ID: <37FAA6CC.2CF1@digizen.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Worked XQ0YAF on Easter Island at 2222Z (sundown) on 10/5 on 28010. Rcvd  
579 report with 5 Watts & a Zepp. Ten is a FB QRP DX band.  
-72 de Chas W3KC-

-----  
Date: Tue, 05 Oct 1999 16:03:35 -0700  
From: Jerry Parker <jparker@fix.net>  
To: qrp-l@LeHigh.edu  
Subject: [52308] Pacificon, THE LIST !  
Message-ID: <3.0.6.32.19991005160335.01108890@fix.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Boy, does time fly.

Here we are with Pacificon '99 in just a few

days. So much to do, so little time.

Am I excited, you bet I am, we have almost 100

folks on the list so far and Lori N6WGC is working

each CUSTOM badge as I write this.

Here is the list as I have it so far:

1. Jim Cates, WA6GER
2. Doug Hendricks, KI6DS
3. Jerry Parker, WA6OWR
4. Paul Harden, NA5N
5. Mike Gipe, K1MG
6. Dick Pascoe, G0BPS
7. Jim Kortge, K8IQY
8. Jim Duffey, KK6MC
9. Joe Everhart, N2CX
10. Doug Hauff, KE6RIE
11. Mary Cherry, NA6E
12. Norm Mellick, KQ6SD
13. Veda Henson, KF6JHC
14. Chuck Adams, K7QO
15. Bill Jones, KD7S
16. Bob Okas, W3CD
17. Russ Dow, N7DW
18. Gody Siason, AC6UV
19. Bob Cortez, KF6CXC
20. Sam Imai, KF6ML
21. Paul Maciel, AK1P
22. Jeff Grudin, AC6KW
23. Bob Hightower, KI7MN
24. Bertie Hightower, N7XJW
25. Ron Baldwin, K6EXT
26. Jim Lowman ,AD6CW
27. Judy Ann Lowman, W6YBS
28. Rich Vizcarra, K6TM
29. Mike Wood, K6MW
30. Ron Smith, KE6RS
31. Brian Kassel, W5VBO
32. Dave Fifield, AD6A
33. John Moriarity, K6QQ
34. Jeff Jones, AB6MB
35. Glenn Menard, W6KI
36. Dave Epps, AB5PC
37. Edna Epps, KF6JSL
38. Eric Swartz, WA6HHQ
39. Lerma Swartz, KD6ANH
40. Wayne Burdick, N6KR
41. Scott King, AH6KL
42. Denis Englander, K06GF
43. Matt Clark, KC6VSR
44. Sam Vigil, WA6NGH
45. Monte Waite, WA6JYB

46. Keith Norrell, W5JBT
47. Chuck Boblenz, AD6GI
48. George Heron, N2APB
49. Jeff Davis, N9AVG
50. John Dundas, W6SU
51. Pete Hoover, W6ZH
52. Joel Neal, KC7UBP
53. Dan Watson, AC6PI
54. Betty Soucy, NY6A
55. Courtney L. Flatau, AJ6Z
56. Ward Hill, N1IE
57. Ed Loranger, WE6W
58. Jim Stafford, W4QO
59. Marilyn Stafford, K4ZOL
60. William Phinizy, K6WHP
61. William Chambers, K6BNC
62. Arth Silvers, W6AGS
63. Brian Shiratsuki, N6SXT
64. Bob Tellefsen, N6WG
65. Dave Meacham, W6EMD
66. Randy Foltz, K7TQ
67. Gary M. Diana, N2JGU
68. Jan Medley, N0QT
69. Jay Bromley, W5JAY,
70. Randy Foltz, A7TQ,
71. Monte Stark, KU7Y
72. Allan Taylor, K7GT
73. Mike Schettler, WA6MER
74. Steve Smith, WB6TNL
75. John Kitchens, NS6X
76. Gerry Elam, K1LR0
77. Rich Stiebel, W6APZ
78. James Bennett, KA5DVS
79. Dave Willey, KD6KWM
80. Mike Ter Sarkisoff, N6DBZ
81. Sig Stevens, AC6UJ
82. Larry Wise, KA5T
83. Jay Bromley, W5JAY
84. Dan Winkler, N7IVR
85. Monte Midkiff, N7TAU
86. Mineyuki "Mike" Hanano  
JR7HAN / KK7RN
87. Randy Fox, W6JZE
88. Frank Fahrlander, N7FF
89. Mitch Louis, WW4ML
90. Richard Stamile, KG2ED
91. Jeff Furman, KD6MNP
92. Gary Davey, N6VZ

- 93. Cam Hartford, N6GA
- 94. Ori Mizrahi Shalom, AC6AN

And the way things are going it looks like we are going to have well over 100 on the list by Pacificon!

If your going to Pacificon 99 and not on the list email me:

jparker@fix.net

Lori will be glad to make a custom badge for you too.

C U THERE ! ! !

72,,,Jerry...WA6OWR...K

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End of QRP-L Digest 1599  
\*\*\*\*\*  
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